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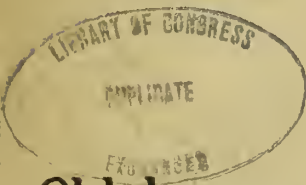
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THE JOURNAL



of the Oklahoma State Medical Association.

VOL. VI. No. 1

JUNE, 1913

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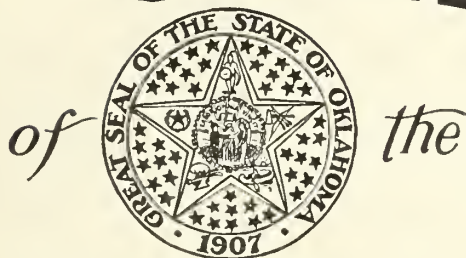
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THE JOURNAL



Oklahoma State Medical Association.

Vol. VI

MUSKOGEE, OKLAHOMA, JUNE, 1913

No. 1

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THIS IS THE OFFICIAL JOURNAL OF THE OKLAHOMA MEDICAL ASSOCIATION. ALL COMMUNICATIONS SHOULD BE ADDRESSED TO THE JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION, NEW PHOENIX BUILDING, MUSKOGEE, OKLAHOMA.

PRESIDENT'S ADDRESS.

J. L. Shuler, M. D., Durant, Oklahoma.

The earnest desire of my life today is to try to express to you my appreciation for having been selected as President of the Oklahoma State Medical Association. I fail to find expression, in my limited command of words, to satisfy my own feelings in an effort to convey to you my gratitude, for the distinguished honor that has been so kindly and unselfishly bestowed.

I wish to say to this Association that I am due kind expressions to the many members and committees who have been called upon to do work for the benefit and interest not only of the Association, but for the profession generally, and for the welfare of the citizenship of our state; the physician who leaves his work and gives of his time and means to work so unselfishly, deserves honorable mention. Almost to a man they have responded cheerfully to every call, and most harmonious feeling has been the characteristic feature in all the deliberations and communications of this year's work.

The special legislative committee selected by the general committee has worked assiduously for the enactment of such legislation as was deemed advisable; it is needless to say that they have worked without

(Delivered at Enid, May 13, 1913.)

thought of compensation, and their labors have been under the most trying circumstances, and the failure to accomplish all that we had hoped should only commend the more heroic efforts of this committee. The special committee was composed of Drs. J. Q. Newell, Curtis R. Day and J. W. Duke. We call your attention to the report of this committee which will be read before the society.

It is with especial pleasure that we mention the fraternal relations that have been existing during the past year between the Texas State Medical Association and that of Oklahoma. This was brought about by the fraternal courtesy of the President of the Texas Association in appointing Dr. E. J. Neathery of Sherman, Texas, as Fraternal Delegate to the Oklahoma State Medical Association and in response to this courtesy, Dr. F. B. Fite was appointed to represent your society at the Texas Association. It is to be hoped that the relations of the Associations may become more and more intimate.

In taking up the further question of consideration to be presented to you, first allow me to say that I feel very keenly my inability to present at this time, an address suitable for the occasion. I have not thought wise to come before you with a paper on any particular topic, but will endeavor to briefly outline topics of general interest for the consideration of the society. While our membership is larger at this time than at any time in the past, yet it is not what it should be in numbers. The membership should be doubled during the next year. The time is fully here for this to be done. One of the greatest needs of the society now is a material increase in members and a closer relationship, that the influence for good may be more effectual. Every good physician of the state should be within the ranks of this society. I urgently request that each and every member do special work in securing members for county and state societies.

As your president, I desire to give special mention to the general moral plane to which the medical profession has attained. To give proper emphasis to this, as a fact, we have but to call to mind the habits and customs that marked the every-day life of the physician of but a decade in the past, at which time it was but to be expected that a physician should drink and indulge in other immoral practices, and we may note the accepted toleration with which the people submitted to their neglected services. There is a sad, unwritten page in the biographic history of so many of the noble men that have fought the pioneer battles of medical attainment in the past. The hardships that attended their professional efforts were, as they thought, necessary to be interspersed with seasons of indulgence, which, in the course of time left heavy traces of mental and physical premature decline.

They did not have the warning precepts and the sustaining environments that are so potent in fostering and perfecting a high moral standard of life as you now have. Yet, as a profession, you are entitled to the highest words of commendation for the moral record now sustained.

I desire to encourage even a ^{*}higher standard for every member of the medical profession. A profession so benign in purpose, so grand in achievement, should have as exponents none save those who are clothed with a spotless robe of a clean, sincere, moral life. To be titled a physician should be a synonym of a high moral character, and I covet this standard of life for every member of the medical profession of Oklahoma.

I just want to call the attention of the members of this Association to the question of malpractice suits. The physician that has something and is doing something is a special object of attack, not that he may have made some grave mistake in his professional work, but simply that he may be made to give of his hard-earned funds to some undeserving person for whom he has perhaps done the most scientific and unselfish service, which was rendered with no hope of compensation. The situation as to this question is becoming so common and embarrassing that often the conscientious physician is discouraged from rendering needed attention for worthy patients on account of this unfortunate situation.

There is one point concerning this question that I desire to bring before the members of the profession, and that is, that directly or indirectly, every suit of this kind is fostered by some member of the medical profession. This should be one of the easiest problems to solve that we have to consider. No suit can be sustained without the aid of medical testimony. It is so easy to make criticizing remarks about the practice of another physician, or remarks as to an operation, stating what should and what should not have been done. Designing questions from the laity catch the unsuspecting physician and inadvertently he is led on to remarks that should never have been made, and that were wholly irrelevant to the conditions that really existed in the case in question.

I think that perhaps this Association could consider suitable resolutions requesting the support of each member in protection of every member who has become a defendant in a suit where such defendant has not been negligent regarding the conditions upon which suit has been based.

I wish to call attention to a true ethical standard. I do not mean to outline a great list of things that one physician should do to, and for, another, or that he should not do, but simply to impress upon the profession the real duty and courtesy that is due one physician from another. This is a very vexing question, and is of vital importance. It can not be solved by set rules, but in all the intricate points that may arise in the varied circumstances that so often confront us, we are simply forced to the one and only abiding rule—that of right and real justice guiding us at all times—and it is astonishing how nearly all of the difficult and intricate points that present themselves can be so satisfactorily and pleasantly worked out by this one rule.

In the consideration of this question we are forced to acknowledge that often the physician wishing to do right is mistreated and taken advantage of, and there are times when he must stand up for his rights,

but most invariably he will come out best if he will be guided by what he sees is right regardless of what may be presented by the opposite side of the question involved.

Let us be loyal at all times and stand by our fellow practitioner, and maintain our own self-respect; encourage a higher plane of professional life in our associates in practice, and I would encourage this standard in your dealings with the unprofessional or the unethical; even to the other schools of medicine, for right as a standard will sustain and distinguish you in most all difficulties that may arise.

It does appear to me that we might get our forces in better shape in regard to having such legislation enacted into laws as we shall desire. Every question that we have proposed for legislation has been so unselfish as regards the interests of the medical profession and the paramount aim and ultimate result of such enactments would have been for the general welfare and protection of the people at large. There is no necessary reason why this society should not, by properly enlisting and arraying the influence that we have now within this Association, have enacted any measure that is needed. Think of twelve hundred influential men distributed throughout every nook and corner of this state, and they of one thought in regard to a matter! Certainly it can be done! We must take advantage of the opportunities for good that present themselves.

Our public interests have been flagrantly neglected, not for a lack of interest in our public welfare so much as a lack of knowledge on the part of our legislators in regard to our aims on these lines. We are not close enough to our law-makers and thus fail in getting our ideas woven into effective laws.

One of the most important departments of government is that of health, yet we know that it does not challenge the interest among our law makers that it deserves. It is therefore the duty of every physician to manifest a greater interest in legislative matters of our government. Having this exalted idea in view, I would urge that intelligent physicians submit themselves to be used as law-makers of our country and thus get in more intimate relationship with our state and nation, not that we might protect the exclusive interests of our profession, but that we might more thoroughly protect that great interest to mankind to which we have set ourselves apart.

Our duty should not be confined alone to our professional labors, but in the fruitful field of legislation we should seek to establish a general standard that will unify our efforts and intensify our usefulness.

There is no one who can so effectually promulgate the great principles for which we are contending. The intelligent physician knows the needs and with his soul in the work will be the more effective in this capacity.

A question that was somewhat considered by your legislative committee of having enacted by our present legislature was a measure directing

that a certain class of feeble-minded patients who have been admitted into our state institution for care and treatment, should be rendered sterile. I think that it would be well for this Association to adopt a resolution favoring same.

'Tis true, this is a very delicate question to legislate upon, yet the absolute necessity for such legislation is apparent to all who give the question thought. This is one among many other state questions that the medical profession must take the lead in—an education that will allow our legislative bodies to pass such laws.

Consider the number that we now have in the feeble-minded institution of our state, and the many applicants now waiting turn for admission. How shall we expect the state to care for the future increase of this unfortunate class of human beings (that should never have been born) if not restricted? To allow a feeble-minded person any possible chance of reproducing more of his class, is criminal, not alone to the unfortunate being that is to be born, but to the social standard of our state, and to those who must contribute to the support of such objects of public charity. In many instances, if this class were rendered sterile while young it would contribute to the chance of an improved mental condition, would render them more manageable in every way, and would obviate the development of the uncontrollable propensity that often abnormally exists with this class of unfortunates.

There are other physical defects and conditions that should demand emasculation. The confirmed criminal should by all means be dealt with in this way. For some crimes, to emasculate would be the most suitable, and the most effectual punishment, and would prove an effectual warning to the criminal class of our state. While it may be some time before such measures are enacted, and we may expect outspoken opposition to all ideas of this kind, but sentiment will finally change and we shall have support abundantly for such questions.

I wish to say something along the line of suitable legal restrictions upon marriage. The time is here now when we must not, as a nation, listen to silly, sentimental, unfounded views on this vital question, but it is with the medical profession to put this question squarely before the people as it should be.

No person should be allowed to reproduce offspring that are sure to be diseased, or that are to be born without physical and mental stamina, starting them out in life without even hope of them being of comfort and help to the world in some useful way. We know that if father and mother are of feeble mind that we shall have offspring of the same kind, and the same as to physical conditions.

Most of the evils and the consequences that we have to contend along this line can be materially controlled if careful and judicious restrictions in reference to marriage are thrown about the physically weak.

Many of the specific diseases, with their evil consequences, are transmitted to generation after generation. Many of these race evils and hardships are permitted to continue on account of the timidity of the medical profession in approaching these delicate subjects and vigorously showing the unhappy conditions that should be avoided and in moulding sentiment looking to the protection of the human race. Our usefulness and efficiency in life as citizens depends upon the conservation of physical and mental development.

In placing the responsibility squarely upon the medical profession, I ask this Association to go on record by adopting vigorous resolutions asking that suitable legal restrictions be enacted in reference to marriage.

The question of medical inspection of school children is one that appeals to me as one of the most important matters before us today, and I feel that the advocacy of this important issue should be heralded from the fountain head of the medical profession, and I would be pleased if this Association should consider favorably the adoption of urgent resolutions, advocating systematic medical inspection of school children. With the advanced knowledge of contagious and infectious diseases, and the general desire of the people to protect their homes from invasion of specific and infectious conditions that might exist with some unfortunate inmate of school, that has, or might have some infirmity, that could and should be corrected, is a point that should be brought to the mind of every patron of school. Then, too, there are so many children who have physical conditions that retard their growth and their advancement in school work, and these conditions being unobserved by parent or teacher, that should be corrected; and I would even advocate that treatment be provided for all children, where home circumstances are such that the child can not have medical attention furnished them otherwise.

I think that we should have state laws requiring careful examination, at stated intervals, of all children and persons, including teachers, who are connected with schools in any way.

No physician or person would question the advisability of prohibiting a teacher in any school, who had tuberculosis in any stage of the disease, but I dare say that we may find them teaching in many of our public schools. We would not think of allowing a tubercular child in school at all; yet we know that there are many in the schools of Oklahoma today. The same may be said of many other infectious diseases that prevail unobserved, and we may truthfully say, are criminally allowed to continue as an unjust risk to thousands of our healthy children, who are from homes that are using every means possible to protect from such infectious conditions.

Shall we not as a profession consider and urge such questions? Shall we not advocate strict measures for the protection of the school children of our state, and our own homes? Such a field of useful work stands out before us in this one question alone!

I do not feel willing to let you off without asking you to continue the fight against tuberculosis. Each year this Association has been endorsing resolutions and arranging means and ways of educating the public in the fight against this ever-present infectious malady. The fight must be kept up until the battle is won—and that time is far in the future. In noticing the list of those of our own profession who have died during the past year, we find that just half of them died of pulmonary tuberculosis.

There is one new feature that has been introduced into this issue, and that is an organization of the southwestern states into a combined effort to memorialize our federal government to convert into sanatoria the military forts and reservations of the south, for the care and isolation of tubercular patients who come to our favorable climate from the north and eastern states.

The many unfortunate tubercular persons coming to the southern states, that are entirely destitute when they arrive, places upon the citizens of this section not only the burden of providing the actual necessities of life, but is risking the citizenship to unjust exposure to this infection.

This organization of states, of which Oklahoma is included, asks that we pass resolutions requesting congress to take notice of the conditions in this respect regarding tuberculosis, and to take steps in relieving the unjust burden and risk to our southern country. I will ask that you do not overlook this important matter.

CHAIRMAN'S ADDRESS — SECTION ON SURGERY.

Dr. J. Hutchings White, Muskogee, Oklahoma.

INTUSSUSCEPTION—REPORT OF TWO CASES.

I trust the members of this section will pardon me if I digress from the time-honored custom of dealing with points of progress in surgery since our last meeting, but I feel that this would be bringing before you those things which you have already assimilated. For my paper I have therefore taken up a subject which is very old, but which to me recently presented new features.

Intussusception is a condition in which one portion of the intestine penetrates into the lumen of the next adjoining portion. The part penetrating the other is called the intussusceptum, the penetrated or outer part is called the intussusceptiens. The intussusceptum carries with it the mesentery. The drawing on this mesentery produces a curve the convexity of which is toward the mesenteric attachment. The tension becomes so great that return circulation is cut off and the mass swells and produces occlusion of the lumen of the intestine. While it may occur at any place in the alimentary canal, the commonest place for invagination is at the ileo-cecal junction. Leichenstine places it at 52 per cent of all

cases and during the first year of life 70 per cent of all cases. Wiggins found 89 per cent in 103 cases analyzed. Both of my cases were ileocecal. The ileo-cecal orifice may form the apex or the intussusceptum may traverse the entire length of the colon and appear at the anus. In one of my cases, a child, the apex of the invagination was in the descending colon midway between the splenic flexure and the sigmoid. The other case terminated at the hepatic flexure of the colon.

In many instances it is very difficult to ascertain the cause. It may follow a full meal, trauma or jumping and is often preceded by constipation. Growths, especially pedunculated tumors or Meckels diverticulum, may be the starting point. In one of my cases I found it was due to the injection of corn; the other could locate no cause.

This disease may be either acute or chronic. Usually we look upon intussusception as a very acute trouble and one which terminates in a few days. One of my cases was of four weeks standing at the time of operation; the other was three days. Disturbance of the circulation of the intussusception takes place. From pressure on its mesentery the gut swells, becomes edematous, hemorrhage takes place into its substance and sometimes into the lumen of the bowel. The gut may become gangrenous and be discharged per rectum as a slough or gangrene of intestine may take place within twenty-eight hours. In less severe cases the circulatory equilibrium may be re-established and the bowel become sufficiently patent to allow passage of gas and faeces. The patient, however, is still exposed to perforation at the neck and sepsis. In those cases where the bowel sloughs and is passed and stricture usually follows at the union which is apt, sooner or later, to prove troublesome.

The most acute cases occur in infants during the first year of life. The symptoms of intussusception differ from acute intestinal obstruction and are quite characteristic. The duration of an acute case is from one day to two weeks. In severe cases the infant who has been previously well is seized with sudden severe pains and may pass into a state of collapse and die; or the pains may last an hour or two, subside or be renewed for longer or shorter interval. There is usually vomiting and diarrhoea. After the contents of the bowel are spilled, there is continued straining, only blood and mucous being passed. The vomit may become stercoraceous. A sausage shaped or oval mass develops which is easily palpated and generally located in the right inguinal region. The bimanual examination—one finger in the rectum and the fingers of the other hand on the abdomen—is of value in locating tumor. During the earlier period of the disease the abdomen is not distended and is not naturally tender or rigid. Later the intestines become distended and the coils stand out prominently, the peristalsis being easily observed. When the small intestine alone is involved the tumor is not so easily detected. The tumor is tender, freely movable and may change its position from time to time.

Adhesions between the coils of the intestine occur after a variable time; they may be absent several days. When absent the intussusception is easily reduced at operation. Gibson (Annals of Surgery 1900) states that on the first day of the disease 94 per cent are reducible; on the second day, 83 per cent.; on the third day, 61 per cent.

There is only one treatment for intussusception and that is surgical. With operation the success depends upon the early diagnosis, prompt action and quick work on the part of both surgeon and family physician. The early recognition of this condition is imperative. It's frequently in early life. The straining with passage of bloody mucus, vomiting and anxious facial expression, with, in all cases, rectal examination will usually clear up diagnoses.

CASE REPORTS: J. D. Age thirty months. Family history negative. Has had whooping cough and several attacks of diarrhoea, otherwise no trouble with bowels. Breast fed until fourteen months of age. Several months before present illness child had some rectal trouble, at which time blood and mucus was passed. Present illness began suddenly on morning of Sept. 18th. The first movement of bowels on that date was apparently normal, the second contained portions of corn, undigested potatoes and streaks of blood. (This is the second case I have seen which followed the eating of corn by children.) During the first day's illness the mother says the bowels moved between thirty and forty times and contained blood and mucus with much straining. He persisted in lying on his stomach and vomited frequently. The doctor when called prescribed calomel and oil, all of which was vomited. The bowels were irrigated. The second day of illness he was more quiet and begging for water. The mother noticed a bluish tumor in the rectum. The stools, which contained mucus and blood, were frequent. The third day the child was seen by Dr. McCulloch in consultation with Dr. Lee, of Checotah. They tried to pass a large catheter through rectal tumor but failed and the child was then brought to hospital and placed under my care. Upon arrival at the hospital this child was in extremis and I felt this operation would probably be of no service but decided to give him the only chance left. His pulse was very rapid, pinched anxious expression, subnormal temperature, frequent vomiting, abdomen distended. The peristalsis in coils of intestine could be easily seen. The child was carried to operating room about midnight, given ether and abdomen opened through right rectus incision, intussusception reduced by milking the gut, abdomen closed and child returned to bed. Time of operation seventeen minutes. Recovery uneventful, child remained in hospital eleven days.

J. M. Age 48. Occupation washerwoman; family history negative. Married thirty years; number of children six; suffered no past illness except malaria, not constipated. Present illness began suddenly on Feb. 1st with pain and vomiting. The doctor who had charge of this case

says the pains produced spasms and coma. There was constipation followed by bowel evacuation and the pains became paroxysmal in character. Temperature subnormal. This condition continued, morphine being used to relieve pains until Feb. 17th.

This patient was turned over to me with a diagnosis of gall bladder trouble with which diagnosis I was inclined to agree upon first examination, as there was considerable tenderness over gall bladder and in right inguinal region a rounded mass freely movable. The abdomen was flat, soft and free from rigidity. She was suffering no pain, temperature 99, pulse 80. However, I deferred diagnosis until following day when I concluded the mass was a ring cancer, the tenderness over gall bladder having disappeared. A purgative of two ounces of castor oil was given the afternoon before the operation, from which there were two free bowel movements. The following morning the abdomen was opened, right rectus incision over mass and upon inspection of gut found an ileo-colic intussusception some twenty inches of small gut having passed into ascending colon. As much of this gut was milked out as possible to reduce; adhesions prevented complete reduction. In order to do an end to end anastomosis with Murphy button, which I thought the best procedure here, it was necessary to open the gut and deliver the remainder of the intussusceptum. This left me about one and a quarter inches of small gut between the incision and the colon. Twelve inches of small gut was now removed and Murphy button inserted. The intestines were sponged with salt solution and abdomen closed without drainage. Recovery uneventful, patient returning home in about eighteen days.

A FEW MEDICAL THOUGHTS.

Dr. C. J. Fishman, Oklahoma City, Oklahoma.

Chairman's Address, Section on General Medicine, Enid, Oklahoma,
May 14, 1913.

After an absence of nearly a year in Europe for study, one cannot help but be imbued with higher ideals and loftier expectations in the field of medicine. The very nature of the work, when one does not consider the material gain, makes it all the more interesting and fascinating. My ideal has become internal medicine as a specialty and I am sufficiently sanguine to the extent that I feel as if it can be practiced in one of the newest of states.

I consider the work to be done in new communities of great magnitude and am hopeful of its quality. A great deal of the world's famous work has been accomplished outside of the great medical centers. Beaumont studied accurately the gastric physiology in the frontier fort in northern Michigan. Austin Flint established a national reputation in Louisville and New Orleans when these towns were young and very far distant from the center of medical knowledge.

The understanding of special branches has increased remarkably because of the restrictions of studies in the narrow fields of science. Strides have been remarkable in all lines of medicine and the diagnosis of internal diseases has kept the pace with other branches.

In serology, a science of comparatively recent development, the studies are beginning to revolutionize certain diseases as well as the treatment of these. The diagnosis of syphilis by serologic methods is in itself an epoch-making advance which goes a great way toward placing medicine upon a more scientific basis. Even though the statements of Friedmann are not accurate, they open up a new field of investigation in that the use of live bacteria as antigen may prove to be of great value after further work along this line. This subject, by the way, is not exactly original with Friedmann.

One of the most remarkable and beneficial reforms in the medical field has been the attitude of the profession and the public to the subject of insanity, and the gradual formation of a body of men in the profession who labor to find out the cause and means of relief in this most distressing of all human maladies. The reform movement along this line has spread to all the civilized world and has not only led to an amelioration and improvement in the care of the insane, but to a scientific study of the subject which has already been productive of much good.

The use of the X-Rays in diagnosis has been the means of ingenious strides in all branches of internal medicine, as well as in the studies of the extremities. The wonderful fine electro-cardiogram almost makes us see the heart's action and translate its efficiency. The result has been a better physiological understanding, as well as a great aid, to the study of heart pathology. The classification of diseases of the intestinal tract is clearing the avenue for beneficial treatment along these lines, while the advancement in the investigations of kidney conditions have reached a point of comparative satisfaction.

Physicians must indeed be optimists, for they are rapidly depriving themselves of important sources of income by the development in preventive medicine. It has been said that they should subside on the misery of others, but they do so not by creating but rather by alleviating misery. To a certain extent we have been beating nature in the selective action of death in the survival of the fittest, so that the weaklings have a fair chance of life and good health. Natural selection is a safety valve to a certain extent upon the production and development of a weak race. Nature's methods are, therefore, of advantage to the race, while the advances in medicine are of greater advantage to the individual.

To comprehend what the neglect of public duty and sanitation means to governments and nations, we must refer to history and remember that great preventable scourges have frequently had much to do with the downfall of nations. Greece, the once powerful mistress of ancient civilization, degenerated because of the omnipresent chronicity of malaria by

producing a weaker, anaemic and cachetic people, before the Romans dared to enter its territory. Similarly has the decay of the Roman empire been attributed to this preventable disease. The work of the famous Italian medical men, including Laveran, Grassi, Bastianelli and others, has resulted in the reduction of the mortality from the fever, two-thirds, in six to eight years. This manifests itself in a greater increase of prosperity and progress of the nation. A familiar example of what preventive medicine has done to aid the work of a nation is shown by the medical attainments in the Panama Canal Zone. Today this zone not only compares favorably with the sanitary conditions of other parts of the country, but is actually equal to the best as shown by the low death rate and actual good health. We, of Oklahoma, must not forget that this wonderful work was instituted and carried on by a former resident of Oklahoma, Colonel Gorgas.

We thus see how we are reducing our incomes, but we must remember that the better informed the people are regarding medical matters, the more likely are they to seek medical advice. The educated public makes it easier for the practitioner to do work along better lines. There is a gradual but certain change in the practice of medicine in that the better informed members of the community come to the physician to ask advice regarding prophylaxis rather than treatment, and they are gladly paying for such advice just as they will pay for legal advice. We must after all remember that the proximate principles for the existence of the profession are the preservation, promotion and improvement of health, the prevention of disease and the prolongation of life.

MELANCHOLIA OF INVOLUTION.

Dr. F. B. Erwin, Wellston, Oklahoma.

In preparing a paper for this occasion, I naturally followed the line of least resistance and selected a topic in which I am most interested and a disease concerning which I had had the greatest opportunity for observation and practical treatment. In outlining this paper I have followed one of our standard authors; but in the treatment of the subject I have drawn largely from my experience with this type of patient in hospital work covering a period of several years, in an endeavor to leave behind the abstractness of theory and present to you the concreteness of the actual practice with this class of mental disease.

As the name implies, the subject of this paper is according to the classification of Kraepelin, which is considered a standard of the modern classification of mental diseases. This stage of mental disease is considered under the heading of cerebropathies of adults (about the time of Pre-Senile Dementia), according to Taub. Dr. Marie treats it under the heading of periodic melancholia. Different authors have different classifications, so that the name makes very little difference providing we know the definite condition to which we refer.

This psychosis seems to bear some relationship to the general physical changes accompanying involution. It generally appears in women between the years of 40 and 50, and a little later in men. These psychoses can and do appear in other periods of life, likewise, other psychoses can and do appear in this period of life. For example—intoxication, infection, mania-depressive and other psychoses are found during this period. However, this form of psychoses is found more often in this period than at any other time of life. These psychoses are then characteristic of the retrograde or downward trend of the human organism.

Arbitrarily or symptomatically, melancholia has been made to include the beginning period of involution psychosis. Just before the beginning of involution the entire physical organism seems to have reached its zenith, and the time has come when the catabolic process is greater than the anabolic process and the result is a gradual or rapid decline of the physical powers. As stated before, the mental status of this period seems to bear some relation to the physical, therefore the abnormal mentality.

Some authors claim that about fifty per cent of these cases are due to defective heredity. Some of the exciting causes are mental shock, acute and chronic diseases. Surgical operations seem to play an important part in the causation of these conditions. In many cases extensive arterio-sclerosis has been found with its attending results in the heart and kidneys. Also an increase of neuroglia tissue has been found in the cortical layers of the brain. The disease may be produced directly by the sclerotic condition of the arteries or the sclerotic condition of the arteries may change or diminish the blood supply to the brain cells so that there may be a change in the cells themselves, which may produce the resulting psychosis. Menopause seems to be quite a factor, possibly in the production of this mental condition. At least, the psychosis is concomitant with the menopause very frequently; whether it has anything to do with the condition is considerable of a question.

Melancholia begins very insidiously and many times the person or their relatives are not cognizant of anything much being the matter with them for months or sometimes years after the onset of the disease. The headache which is persistent and not easily amenable to treatment, insomnia, vertigo, general debility, loss of appetite, constipation, requiring an increased effort to perform their daily work as well as many other symptoms are very definitely marked for months before the characteristic symptoms appear. The character of the pulse is accentuated during the disturbed periods and diminished during the depressed stages. When the mental excitement is increased the blood pressure is increased, and vice versa. The temperature corresponds quite constantly to the mental state. Frequently the patient is troubled with cold hands and feet, bluish appearance of fingers, hands, feet, toes, lips and face; sometimes there is an edematous condition of the hands and feet. Respiration is found to

be diminished to a considerable extent. The secretions of the digestive tract are frequently very much diminished. Sometimes salivation, dry lips and tongue; other times diarrhoea, sordes, anorexia, fetid breath and constipation. The urinary changes are not constant and not always very marked. The quantity is frequently diminished and sometimes retention and loss of sphincter control. Speech sometimes increased; especially when accosted they begin to talk about their doubts and fears. The patient remains quiet, frequently, except when spoken to. The pupils are, many times, unusually dilated, nearly always equal. They react slowly to light and accommodation. Women are frequently troubled with dysmenorrhoea, amenorrhoea and other similar diseases peculiar to them.

The patient begins to manifest a sad, dejected and apprehensive condition. Sometimes the loss of weight is considerable and rapid. Their mind is overshadowed with doubts and fears of impending danger to either themselves or their immediate relatives, or both. This fear cannot be allayed, entirely, as a rule, no matter how much logical argument may be brought to bear upon their case. Because these conclusions have come from a wrong premise from the fact of having been based upon false perceptions or hallucinations which the person has and therefore the things which they see, hear, smell, etc., are just as real to them as if they actually existed.

Along with their doubts and fears they are troubled with the idea of having committed some terrible sin in the past, that they are going to have to suffer some awful punishment for or be murdered in an inhuman manner. This delusion is based upon the fact of some hallucination they have, such as hearing people talk about the plot to do this injury to them when these parties did not know that any one was listening, or the patient claims to have seen things or actions which they have interpreted as meaning injury to them.

They always, or practically always, consider that they are very unworthy and do not deserve to enjoy life or any of the blessings of it. They consider that their bowels are absent or do not act properly, or that some other organ or part of the body is absent or acting abnormally. Frequently they are troubled with the terrible idea that their brain or spinal cord is rotting away, or that they have become infected with some dread disease.

Their consciousness is usually clear and they are well oriented. The apprehension is sometimes disturbed to a certain extent. Their thought is coherent and relevant. They usually have some insight as to their condition.

In some of the cases occurring later in life their delusions are more fantastic and senseless. They have nihilistic delusions in which they say that nothing exists. Hallucinations of sight and hearing are very prominent. Consciousness is usually clouded, with some disorientation. Emotion is of uniform depression.

They do not care to work and refuse their food very often; are very suspicious and suicide-ideas are very prominent.

The course of the disease is quite extended and lasts from twelve months to two years. The development is very gradual, of prolonged duration, and the convalescence is extremely slow. The anxiety of the patient gradually gives way to fretfulness and irritability which slowly subsides. Insomnia gives way and the normal sleep slowly takes its place. With all the other improvement the weight steadily increases and the patient gradually returns to normal or as nearly so as they will ever do if improvement ensues. Of course, if they do not improve the reverse is the rule and the patient dies from exhaustion either before or after complete loss of the mental faculties.

The diagnosis of this condition is frequently not a difficult task, however, it sometimes is. The age of the patient is always taken into consideration. The slow development which extends over a number of years; the uniform course and the long duration, are next in importance. It is to be differentiated from the depressive form of manic-depressive psychosis, by the disquietude of the emotional field as compared with the dejected and hopeless attitude of the former. The emotional field is less uniform; the psycho-motor field is not retarded.

The depression of catatonia is distinguished by presence and persistence of hallucinations and inaccessibility of patience. From senile dementia by diminished impressibility of memory for recent events, a tendency to fabrication, disorientation, emotional indifference, etc. From dementia paralytica by early evidence of mental deterioration, disorientation for a time poor judgment and memory, etc.

According to Kraepelin about one-third of the cases recover; twenty-three per cent improve to return home; twenty-six per cent become demented; nineteen per cent die within two or three years. The prognosis is less favorable after fifty-five years of age.

Many things are to be taken into consideration in the treatment of these diseases, such as hospital life, rest cure, sunshine, feeding, happy surroundings, proper regulation of the bowels and kidneys, care of the skin, hydrotherapy, and electro-therapy, massage, etc. Forced feeding may be necessary owing to the condition of the mind. Insomnia may be overcome by prolonged hot baths, packs or massage. Hot food before retiring is sometimes an excellent help. The drugs used for this condition are many but probably some of the best are: Trional, Veronal, Somnos, or Paraldehyde. Anxious restlessness may be successfully overcome by the judicious use of tincture of opium. Guard carefully against any attempt at suicide. Psychotherapy can be successfully used many times in these cases to alleviate distress, modify delusions, and relieve anxiety. Light employment is an excellent thing for the patient at the proper time. When the patient has fully recovered they gain insight into the disease, are well nourished and have normal sleep.

One of the great helps in diagnosing mental and nervous diseases is the general demeanor and appearance of the patient when he first enters the room for examination. We see a person between forty and fifty years of age coming through the door with a rather reluctant advance, sometimes offering some resistance to the nurses. One of the most striking things to catch the examiner's eye at first probably is the distressed appearance of the person, the wringing of the hands, moaning and uttering, sometimes plainly and sometimes incoherently, such exclamations as: "They are going to burn my children," "Please don't murder me," "My children have gone to hell; I heard their cries last night," and other similar. By properly directed questions the patient can be drawn into a conversation and frequently seems to forget for a moment their apparent mental agony. The eyes of the patient generally present a good index to the mental state.

The physical appearance frequently shows considerable loss of flesh. The breath is very foul and sordes accumulated to a considerable extent upon the teeth. The hair is usually disheveled, skin is dry and harsh. The patient is extremely restless, and it is many times almost impossible to keep him seated while talking to him. This general appearance shows the disturbed state of the emotional field which is one of the chief indexes in the diagnosis of melancholia.

SKIN GRAFTING.

By J. Culbertson, Whitefield, Oklahoma.

In the first place I wish to offer an apology to our Secretary, as I was slated for a paper on "Preventive Medicine," a subject which I feel myself incompetent to write upon or at least to read before an intelligent body of physicians. Therefore, I substitute a little case of skin grafting which has been very interesting to me, and at the same time having intervals of very discouraging results.

In the second place, I am sure that "Preventive Medicine" will not be passed up without due consideration, as our worthy Doctor Mitchell is slated for a paper on "Sanitation" for a future meeting, and we are looking for a paper that will cover the whole field. Doctor Mitchell is well versed on this subject and will do it justice.

The case which I wish to report is well remembered by all the physicians of Stigler, and Drs. Mitchell and Fannin saw the case.

About February 4th of this year, Mrs. L. D. S———, of Whitefield, received a severe burn caused by the explosion of a lamp which was sitting on the mantle of an open fireplace. Her clothing was saturated with the oil, and igniting from the fire in the fireplace, she received very extensive, but superficial burns of the anterior surface of both thighs, the abdomen and left breast. However, these were not very deep and did

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not destroy the entire tegument of the skin, though the entire left upper and fore arm from the shoulder joint to the metacarpo-phalangeal articulation was entirely fleeced of every atom of skin. The fingers and palmer surface of the hand, however, were only superficially burned and healed nicely without much trouble or delay.

Right here is where I expose some of my shortcomings, with which I boast of being possessed to a higher degree than any other man in the house, and by negligence of being later seeing my mistakes than any other man. But I attempt to exonerate myself by stating that I had this case in a very busy time.

Treatment.—I proceeded to relieve pain with my hypo, morphine and atropine, 1-4 and 1-150, and about three shots did sufficient. Linseed oil and lime water were quickly applied and were used very freely for several days. On account of severe suffering, I was forced to dress the wounds once or twice in twenty-four hours. The pus formation was very great, the sloughing of debris was very slow, and any attempt at removal of same would bring forth screams and nervous rigors. In my desperation to keep up with my work, and to get a little rest, I abandoned my authority and permitted them to apply a nostrum salve which seemed to give some temporary relief, until I had quite a severe pyaemic infection to deal with. And owing to the severe pain on attempt at removal of debris, and the continual occurrence of chills, fevers and sweats, I advised going to the hospital. We called consultation and they concurred.

On February 20th we transported her to the St. Edwards Hospital at Ft. Smith, where she remained for seven days. In the meantime all the debris was removed from the wound, and she was placed upon a local treatment a 15 per cent oxide of zinc ointment, and she returned home on the 27th somewhat improved, but the pus was discharging as before. She expressed herself as being determined to get back to Oklahoma, where physicians were humane, and I suppose to her physician, who would so readily yield to combusive and lachymary influences.

Well, every part except the arm did nicely under the above treatment, and at this writing have entirely healed with quite a lot of cicatricial tissue. Yet the arm discharged pus freely, and there was no indication of skin formation, therefore we decided to do some grafting. And for fear of failure on account of excessive pus, we acquainted ourselves with the intention quite a lot more than we did the laity.

On March 5th we dressed the arm in the usual way, leaving exposed the surface on which the grafts were to be placed. We irrigated same thoroughly with a weak solution of permanganate of potash, covering it at present with two or three layers of absorbant gauze. We took the skin from the arm of one of her sons, after scrubbing with soap and water, and ether and then alcohol, and drying thoroughly. We proceeded to cut the grafts after Ollier's method, and applying them likewise, until we had applied five. Each graft was about 3-4 of an inch in width, and

about 1 and 1-8 inch in length. We placed them on, I suppose, about 3-4 of an inch apart, and by accident one of them was in a position with the margin of the natural skin. Then we applied next to them a single layer of gauze saturated with the weak permanganate solution, then over this we applied the usual dressing of heavy gauze and zinc oxide ointment, then cotton, and a roller bandage. We redressed every 24 hours, leaving the inner layer of gauze undisturbed, but cleansing it thoroughly with a camel's hair brush and the permanganate solution at each dressing, until the sixth day following the operation. On removing the gauze at this time I found that three of them had adhered, and two of them came away with the dressing. In three more days these three had sloughed off all except about half of the one next to the natural skin, which began to show signs of growth. At the time of this grafting the pus was in abundance.

Almost in despair, and to rid myself of the blame, I accused the pus of being responsible for the failure. We at once placed the patient upon calcium sulphide, 1 grain every three hours, and at the end of one week the pus had subsided to a considerable extent and the offensive odor had improved considerably.

On March 19th we repeated the grafting with the same technique, but this time we applied twelve such grafts taken from three different arms. We placed them in the same manner as before, and three of them approximated the natural skin. We applied the dressing in the same manner as before, and on removing the inner layer of gauze the fourth day following, we found them all tightly adhered except one which came away with the dressing.

On the tenth day following the operation, those nearest the natural skin showed signs of growth, and thereafter seemed to reach out to meet small extensions advancing from the natural skin. As soon as they were connected, the graft would spread in every direction, and those that were isolated would remain indolent, until reinforced by the one just mentioned, when it would begin to grow in the same way. This growth continued in a consecutive manner until they were all connected except three of the remotest ones, which seemed to take the retrograding route until they finally disappeared by absorption or otherwise.

We continued the sulphide of calcium treatment three times per day until April 19th, at which time the pus had almost ceased to appear. Then we decided to try a few more grafts, with a different way of obtaining and applying them.

We proceeded as before, except in obtaining the grafts from the anterior surface of the upper arm. Instead of using the razor, I placed the skin on a stretch in every direction and used a freshly broken piece of window pane with heavy and steady pressure, scraping downwards, when the strips of skin the thickness of paper would roll up in front of the instrument like a roller bandage. Then we would clip them off with the

scissors, and place them on the margin of the wound, overlapping the natural skin, and with the point of the scissors, unroll them towards the center of the wound, until I succeeded in so placing eight grafts about 2 1-2 inches in length, and dressed in the usual way. On removing the dressing the fourth day following the operation, I found them all adhered nicely, and on the tenth day following the operation they had begun growing at the ends next to the natural skin, and they gradually advanced in growth towards their distal ends, and spreading in every direction until at this writing the entire surface is covered.

Now the particular point of interest to me in this case is, in part, my aforementioned shortcomings. I learned that there is more to the saying than I imagined, that linseed oil and lime water is a pus generator to a finish, and that by permitting them to apply the nostrum ointment because it was soothing, and anodyne, this ointment being too stiff to admit the egress of pus, thereby acting as accomplice in the pus infection.

In the minor matters I observed the following in regard to the frequency and kind of dressing best suited for the occasion. Thus, where the gauze was too light, and the ointment too thin, same would admit the egress of the ointment same as it would the pus, thereby admitting the gauze to bury itself into the raw surface, and on removing the dressing it would irritate and cause bleeding in spite of any precaution I could use with olive oil or any other lubricant, therefore disturbing any delicate skin growing which might be in process.

On the other hand, I observed that in using heavy gauze and stiff ointment, same would pin the pus to the raw surface, and the result form a septic condition which was also regretable. I also observed that after becoming adherent, the grafts nearest the natural skin began growing first and approximated in a consecutive manner. And those that were farthest from the margin of the wound were last to begin to grow. They would seem to adhere same as the others, but apparently sit still or spread very slowly until touched by one already reinforced from a marginal source, when it would at once begin to spread rapidly.

I also observed that in obtaining grafts by Ollier's method, that if you are a little nervous it is a hard job to peel a good, long, thin, regular graft with the razor. In trying to obtain dry skin scrapings with a piece of broken window pane, I learned that I could get the long strips as thick as ordinary writing paper, much easier by using the glass with heavy and steady pressure, but without the sawing motion used with the razor. In regard to the dry skin scrapings, with three trials I failed to generate skin growth with them.

And now drawing from the above observations, I have come to the following conclusions for my own satisfaction: That in extensive burns where grafting is contemplated, I will use just as little linseed oil and lime water as possible; I will remove the burned debris as soon as possible, not waiting for it to slough. As soon as I get rid of the burned

tissue, I will saturate the system thoroughly with calcium sulphide, limiting the formation of pus to a minimum before attempting to apply the grafts. I will peel the grafts with a piece of freshly broken glass instead of the razor. I will place them on the wound lineally instead of in patches, starting each line overlapping, or approximating the natural skin, running as far as desired, or entirely across the wound as circumstances may require. Then beginning another line at right angles to this, if there is natural skin to start from, and connecting them in the centre. etc., until the desired amount is covered. If, however, there is no natural skin at right angles to start from, I will make several short parallel lines extending from the margin of the wound with the distal ends, pointing to the centre of the wound; then when these have begun to grow, I will start from their distal ends and close in the centre. That is, in case, which is generally the case, that the grafts are scarce and hard to obtain, thereby having to make two or more graftings of it.

Over the grafts I will place a single layer of gauze saturated with a weak antiseptic solution, then I will dress the entire surface with the heavy gauze and stiff ointment, and then redress every twelve to twenty-four hours in order to remove accumulations and prevent irritation by sticking. At the same time, not disturbing the inner layer of gauze for about four or five days, but instead, with a camel's hair brush and antiseptic solution, cleanse it thoroughly at each dressing. As all the grafts that adhered at all did so in three or four days, and probably sooner if I should have examined, at the end of this time I will remove the single layer of gauze, after first thoroughly cleansing it with an antiseptic solution, then loosening the gauze with the brush and olive oil. Then I will continue the heavy gauze and stiff ointment applications, changing from twelve to twenty-four hours until I am thoroughly satisfied with the adherence and growth of the grafts, then I will replace the heavy dressing with a more absorbent one, and redress at wider intervals.

Please do not understand that I would always use the above remedies and dressing in every case, but of course I would change according to indications, and my best judgment. This is only an outline of the above case.

In further conclusion, I wish to say that the above case has not advanced to an entire cure. However, the points which were of so much interest to me have fully demonstrated themselves to my satisfaction. And furthermore, I will say that this paper was not intended to throw any light whatever upon the present knowledge of the treatment of burns and skin grafting thereof, but instead, as a substitute for a paper which I was asked to write upon "Preventive Medicine," a subject with which I have not familiarized myself, and a subject which does not interest me as does the equipage with a knowledge by our personal experience to successfully combat an emergency after the morbid process has cinched its corruptive fingers upon the victim.

THOROUGHNESS IN ALL WE DO.

G. A. Mcrrison, M. D., Poteau, Oklahoma.

The fact that I believe there is a class of cases coming into our hands, as general practitioners, which we are inclined to treat on general principles, and do treat in that manner, without satisfactory results, until such time as the patient becomes dissatisfied and appeals to the specialist, is my excuse for offering this paper. I refer to a class of cases coming perhaps more especially within the field of gynecology. I am not a gynecologist, neither are any of us in the sense of specializing, but we would be able to acquit ourselves more creditably to do better work along certain lines, to say nothing of increasing the financial status of our office practice, if we paid more attention to the class of cases I have in mind, going deeper into the merits of each individual case than as general practitioners we are inclined, as a rule, to do. Whether our failure to handle these cases successfully is due to indifference, ignorance or a certain hesitancy to bring out the facts by resorting to digital examination on first consultation, and suggesting the proper method of treatment, depends largely on the individual physician to whom the patient may apply for relief.

It has been my fortune to be associated with my partner and individually with a number of such cases within the past six months, and we have been able to treat them satisfactorily to ourselves only by going thoroughly into the merits of each individual case—not merely getting a statement of the patient that she was nervous, tired, run down and could not sleep, and all the other symptoms so familiar to you all, and then prescribing nerve tonics and so forth, and passing the patient out. That won't work.

In order that I may make myself plain and give you the idea I have in mind, or, in other words, if you please, the golden text of this paper—thoroughness—I wish to cite for illustration two or three cases that came to us.

First: Mrs. B. W., aet. 36. Nullipara. History of run down nervous condition. Habitual headache, persistent constipation and scanty menstruation, not painful; appetite capricious; could not sleep well and was incapacitated for the performance of her household duties. She was given the usual examination—that is to say, temperature taken and tongue examined. The ever-ready prescription pad being handy, she carried a message to the druggist for remedies which she faithfully used some weeks without any material benefit. Then other remedies along lines of general treatment were tried without any permanent benefit. Some improvement in some phases of the case were noted, but on the whole the treatment was unsatisfactory to patient and physician as well. About this time a more thorough examination was suggested to the patient and, though hav-

ing refused vaginal examination earlier, readily consented at this time. She was placed on the table and a careful investigation of the condition of uterus and appendages made, revealing an under developed uterus and an endometritis. This cleared up in my mind the puzzle as to why there had been no material improvement under medicinal treatment. The uterus was dilated, thoroughly cleansed with lysol solution, then mopped with an iodine swab, and patient sent home. Next day she reported having slept well and feeling less nervous. Local treatments were continued every third day with iodine until all discharge had ceased. Laxatives and tonic treatment continued until nervousness was under control and a regular habit of bowels established. The iodine soon controlled the cervical discharge and patient made nice recovery. At this time she is free from the headaches, not nervous and the menstrual function normal.

Second: Mrs. P. W., aet. 21. Nullipara. Give a history of miscarriage at six months one year ago. Health has been below par over a year. Anemic, nervous and weak; unable to perform her household duties. Temperature normal, bowels somewhat irregular but not particularly constipated; tongue slightly coated and appetite changeable.

Patient was placed on tonic treatment with laxatives—in fact, was treated along general lines for some weeks with but little if any benefit therefrom. At one time a malarial element was suspected and quinine administered, which seemed only to intensify the nervous condition and depress rather than stimulate. Its further use was discontinued. At a subsequent visit to the office a uterine examination was suggested to her and she readily consented thereto. Found an excoriated os with a slight discharge from cervical canal. Some thickening of uterine tissue and more or less sub involution. Patient treated with local applications of iodine after careful cleansing with lysol solution, until excoriation and discharge had been overcome. She was given Fowler's solution, Hydrochloric Acid and Essence Pepsin in combination. In a few weeks of such treatment patient recovered her general health to the extent she was able to discharge the household and outdoor duties usually devolving on the farmer's wife.

Third: Mrs. B., Col., aet. 38. Nullipara. Gave history of impaired health dating back a period of four or five months. Questioning elicited the fact that there had been an abortion some two months before coming to us. That she had been under medical treatment but without satisfactory results. Said the abortion occurred without any disastrous consequences and she had not had any trouble which might be referred to the incident. The usual tonic and laxative treatment was prescribed with instructions to report later. Some days after this consultation we were sent for and found her in bed suffering as she said with a chill and was unwell. Upon being asked if it was her time to be unwell she said no. Remembering the history of abortion an examination was suggested and agreed to. Found os somewhat dilated. Dark, offensive discharge issu-

ing therefrom and curettment seemed to be the proper thing, which was done next morning under anaesthesia, quite an amount of refuse matter, placental tissues, etc., being removed. The cavity was cleansed with lysol solution and tonic treatment resumed. Patient made a rapid recovery.

You will understand, gentlemen, I do not refer to these cases with a view of exploiting any line of treatment in particular, but because in the beginning—that is to say, at the time of first consultation—there was not sufficient evidence in the case to warrant bringing a charge against the much-abused uterus and appendages and to show how easily one may be mislead in early conclusions. Since we have been giving this class of cases closer attention and have adopted the plan of going more deeply into the conditions presented, instead of dismissing them with tonic treatment and a few words of advice as to general health, it has been our experience that satisfactory results in the way of treatment have not been difficult to obtain. There is considerable consolation in the fact that one is able to hold these patients from drifting into other hands. It is something to be able to have and to hold the confidence of our patients. They have a right to expect from us, when they place themselves in our hands for treatment, the very best there is in us, and they do expect it. I began by saying we are prone to treat this class of cases, in the main, in a desultory sort of way on general principles, and I say now as long as we do this we fail to give our patient that which is her due, and we fail to acquit ourselves creditably and should not wonder why Mrs. So and So went to somebody else for treatment.

We should make a careful study of each individual case presenting itself to us, going carefully into every detail, if we would retain the confidence of our patrons.

As physicians—busy physicians—we find ourselves liable to get into a rut. Catch ourselves doing routine work. We get the habit of looking at our patient's tongue, taking the temperature and grabbing the ever-ready prescription tablet to send them to the druggist with a message which we hope will result in physical benefit to them, with our mind perhaps divided as between patient's condition and the completion of a horse trade, or the management of our business or farm. How quickly the patient sees these things. We find ourselves soon—all too soon—wondering why? That these things ought not to be you will all agree. By becoming careless in our work, we not only lose out in point of reputation and in finances but we become a standing reproach to the medical profession. It behooves us to be more careful in matters of diagnosis and treatment. It's up to us, if you please, to take with us, in addition to a well-stocked medicine case, an active, alert, well-trained mind when we visit our patients, and to use these to the very best interest of those who, through their confidence in our ability, place themselves in our hands for treatment. A mind centered on the work in hand and not divided as between the practice of our profession and commercialism. If a young man begins

a professional career, intending to make it his life work, he will make good or fail according as he centers his mind on the work in hand, or divides it between professionalism and commercialism. He cannot run a mercantile business and practice medicine at the same time and do both successfully. One branch will succeed at the expense of the other. Let us then see to it that as physicians, our patients get the very best there is in us. This means "thoroughness" in all we do.

EDITORIAL

THE ENID MEETING.

The twenty-first annual meeting of the State Medical Association is now numbered among those of the past.

To many of the attending physicians the meeting was the first opportunity ever given to see that portion of the state, which is beautifully situated. Enid is a clean, orderly little city, but is sadly lacking in the necessary hotel accommodations for the care of such a meeting as we have, but this shortcoming was more than compensated for in the efforts of the local resident physicians toward entertaining the members.

All meetings were held in the First Baptist Church except the women's auxiliary, which held its meeting in the First Presbyterian Church.

The exhibits were hardly as large as usual at these meetings and were somewhat marred by the incongruous addition of an antiphlogistine exhibit, but otherwise were a source of interest to the visitors.

The actual work of the House of Delegates and of the different Sections was not as effective as might have been and was hampered by many delays and distractions, so often incident to our meetings, due to misunderstandings.

The election for the presidency, a three-cornered affair, resulted in the selection of Dr. J. M. Byrum of Shawnee, who for the past several years has taken an active interest in the Association's affairs and who two years ago represented the State Association at the Chicago meeting of the A. M. A. Council on Medical Education and Legislation.

It is the consensus of opinion of all those who attended that some means must be determined to separate the work of the Association in such a manner that the work of the House of Delegates will not conflict with that of the various Sections.

THE INSTITUTE FOR THE FEEBLE MINDED.

One of the interesting features of the trip to Enid was a visit to the Oklahoma Institute for Feeble Minded, which is under the superintendency of Dr. W. L. Kendall. This institution is one of the best cared

for and maintained institutions of this character ever seen by the writer. From the basement to the garret everything is spick and span and in a highly sanitary and creditable condition. There is every indication that those engaged in the care of the unfortunate inmates not only realize the responsibility placed on them, but have entered into the task and are carrying it out with a great deal of personal interest and pride. Dr. Kendall is assisted by Dr. A. L. McInnis. There are now 86 inmates; about all that can be cared for, as the institution, like many of the state, is overcrowded. There are, including the superintendent, 12 assistants with various duties. The institution owns 640 acres of land in a high state of improvement, 417 acres being in cultivation. All the milk, chickens and garden products used in the place are produced from the farm.

The superintendent has fitted out a very nice little laboratory and operating room in which is carried on such work as may be necessary.

The recent Legislature voted an appropriation of fifty thousand dollars for new buildings and equipment which will place the institution in much better condition than it now is.

A SAMPLE OF METROPOLITAN NERVE.

(Thinking that possibly a considerable number of physicians may be unaware of the wily tricks and schemes of some of our ambitious city surgeons or hospitals, the following correspondence between Dr. F. R. Wheeler of Mannford, Oklahoma, The American Journal of Clinical Medicine, Chicago, and Dr. Emory Lanphear, St. Louis, is presented in full.)

Dr. C. A. Thompson, Editor,
Muskogee, Oklahoma.

Dear Doctor:—

Perhaps you are not advised of such as the enclosure reveals. It may be that they are sent only to those who are in the "sticks." Well, I got mine.

If you see cause to "air" this in the Journal, it will no doubt be appreciated by many, but "damned" by others. I believe I will send you a copy of a letter I may write to a Medical Journal. Glad you were re-elected, as you are making a good Journal.

Very truly,

F. R. WHEELER.

AMERICAN HOSPITAL

3447 PINE STREET

EMORY LANPHEAR, M. D., PH. D., LL. D.
SURGEON IN CHARGE

St. Louis, Mo., May 10, 1913.

My Dear Doctor:—

I know you believe in "division of fees" between specialists and general practitioners and I want to interest you in the American Hos-

pital (headquarters of the American Polyclinic) on that basis. I would like to have you sign and return the enclosed card. If you never send a patient there will be no harm done; if you do, you will become part owner of a hospital which we are going to make the most popular in the Mississippi Valley. Please note: the card states explicitly that you are to have 40 per cent of all fees (exclusive of hospital care, of course) received from our patients sent to our staff for operation or treatment. Hoping for an immediate and favorable reply, for which a stamped envelope is enclosed, I remain,

Most cordially yours,

EMORY LANPHEAR.

The American Journal of Clinical Medicine,
Chicago, Ill.

Gentlemen:—

Perhaps I owe you for a few sample copies of your Journal, and will pay you for same on receipt of bill, but excuse me further for the following reason:

A contributor, Emory Lanphear, is sending out letters in which he is offering to "split" the fees with such suckers as will send him other suckers, and as this is not in accord with true ethics or rather my conscience, and perhaps is done without your knowledge, I do not care to read a Journal that will tolerate such commercialism. It seems to me to be tinctured with the obsolete Medical Brief. I have in my possession a letter from said party, dated May 10, 1913, in which I am offered forty per cent of all fees, exclusive of hospital care, etc. This Lanphear may be a great surgeon, but not great enough to be a member of the Oklahoma State Medical Association. And now that you are informed of such "selling of a patient," if you continue to have such parties for your help, we will hereafter dissolve partnership.

This letter is written through all kindness, by one who will uphold the dignity of the profession against commercial methods.

Very truly,

.....

The letter above quoted from Dr. Lanphear was probably sent out pretty much over this and other states, and no doubt will leave a sting in many places. Dr. Wheeler is to be commended for taking up the cudgel in this matter.—(Editor.)

HOUSE OF DELEGATES, 21ST ANNUAL MEETING**May 13, 2:00 P. M.**

House called to order by Dr. J. L. Shuler, President.

Invocation by Rev. J. E. Burt.

Welcome to Enid by Dr. Kelso.

“Members of the Oklahoma State Medical Association:

“At the request and in behalf of the Chief Executive of Enid I welcome you to our city. It is not necessary at this time to speak of the glories and good things of our city, for they advertise themselves; neither is it at this time necessary for me to speak upon the frivolities of life, but suppose you say that we, as physicians, who have entered upon that great work, all appreciate these meetings; these associations; these assemblies as a place for scientific study, and to bring us into that social contact which is of so much benefit to us all. Man never, since the first hour of time, has been satisfied to be alone. It is necessary for the consummation of purposes that great minds unite and form such bodies as may be enabled to accomplish that great purpose, that one object in life—that success which each and every individual tries to attain—and which cannot be attained without that inevitable assistance, which is the result of life.

“Again I will say that I will not tire you, but twice welcome to our city. We have no keys, we have no walls, therefore I never could understand why there should always be an address of welcome. In ancient times you remember the cities were all walled in and there were keys to lock the outer gates so the enemies could not come in, but we have no enemies, and when you visit the city of Enid, and many old physicians I have known for years have wanted to come here, I hope that your greatest realization will be that promise of which you anticipated years ago.

“Again you are welcome.”

Response—Dr. J. A. Walker, Shawnee:

“This is a duty and a pleasure devolved on me in the past thirteen minutes. I think it was about thirteen minutes ago Dr. Davis asked me to respond to an address of welcome, and I understood the Mayor was to talk and I thought he might say something, but he has not appeared on the scene and has not said anything, and as there are no walls and no keys I presume we can enjoy ourselves just the same. The town seems to have wide streets and nice good pavements and it does not look like it had rained in the last twelve months, so maybe we can locate the things the Mayor was to tell us were here. A response to an address of welcome that is brought about in a moment, as you all know, is extemporaneous. I should feel embarrassed here if it was not that in looking over this little audience I see so many of my friends. I could sit on

a stool and talk with these men face to face and not be a bit embarrassed. Another thing, I am in a Baptist church and that is customary for me. Sometimes I go to a Baptist church twice a week and sometimes not so often. Of course it is all my fault. That reminds me of a nigger story.

"Martha Washington joined the Baptist church in the country. She came to town to be baptized. She met her friend, Liza Johnson. Liza said: 'Martha, why did you come to town to be baptized?'

" 'Well, Liza, I will tell you; they did not have any pool room in our church.'

"That is why I feel at home. We have a good pool room. If you do not believe it, the pastor will show you.

"I know the doctors of this state form an aggregation that is as intelligent and brave as any other men in the state, the lawyers and school teachers notwithstanding. Some of us had to go through that old grind of school teaching before we could get to be doctors, and a number of us had to be lawyers before we got to be doctors, and I think they have the right conception of their duty towards their fellow men.

"I accept gratefully our welcome here from Dr. Kelso and the Garfield County Medical Association. I voted for this Association to come here. I never was here but once before, and I came in the night and went away in the morning early. Now some of us in Oklahoma came from Texas and some from Arkansas, and every place else, and a good many of us had good warm friends who followed us to the state lines. Some of us come over. We are here yet and we are going to stay here.

"I know this County Society will do itself proud to take care of this Medical Association. When the proper conditions are present and proper arrangements are made a great body of men can come to the State Association. I hope we can have 500 men here tomorrow. They are not here yet. I am sorry we have so few here on the first day. Our town of Shawnee had fewer present than she had for ten years. I am sorry we have no more the first day. Our town should have more and I hope the other towns won't do that way.

"I thank Dr. Kelso for his welcome in behalf of the State Medical Association of Oklahoma."

Address of Welcome, Garfield County Medical Society, Dr. Walter M. Jones:

"There is a figure of speech called an antithetical epigram. I know of no occasion where I could use that as well as now. First, stating it gives me great pleasure in behalf of the County Society to welcome you here today. Second, stating that it gives me no pleasure at all, in fact since the chairman of the committee on arrangements phoned me, I had angina of the heart, but since hearing the orators who preceded me I feel now I have hypertrophy of the heart.

"I am not going to cast any oratorical darts at you today, in fact they have all been cast, but I have one little point I want to bring out: Not long ago one of our members, one of the older members, in discussing the clergy and laymen, said: 'The clergy has made no progress since Jesus Christ, and if a physician went to sleep like Rip Van Winkle for 25 years, or 30 years, and should wake up today, he would know no more about the practice of medicine and surgery than a chicken.' I believe he said a rabbit, I do not know.

"Now why is it that we who belong to a profession that could have anything we want, why is it that we, who are supposed to be on a high plane physically and morally, should pass criticism on our brothers instead of going up side by side? Why is it we are willing to sit in our office and listen to the story of some one who is running down a brother practitioner? Why is it we will hold consultation with a brother physician and make underhand insinuations? Why is it we will make an examination for life insurance and be surprised at some condition of the patient's heart, and be surprised that the family physician has not found that out before, but being such a good friend of the patient we pass them for life insurance? Why should we do these and other things like them? I tell you we do not know each other; we are not friends. We let that little word 'jealousy' creep in. If you have a friend whom you know to be mentally, physically and morally reputable do not let some one come up and berate your friend. What would you do if they did? If you are a man you will call him down. If you are a man you will stand up for your friends. If you know some of the things are so, you will try to explain them.

"I notice in our County Medical Society, and we meet every Friday night, that the men who meet and discuss the matters are the ones who do not fight each other. They are the ones who hold consultation together. They would just as soon have one of their friends go and see their patients when they are away. We know what they say will be all right.

"I know that in the three days you will be here you will have many good scientific papers; you will be raised upon a mental plane, but I hope your great pleasure will be in making friends, in learning there are other men who are competent and good. I hope you will get closely acquainted. I thank you for your indulgence and once more I welcome you to our city."

HOUSE OF DELEGATES

May 14, 9:00 A. M.

The House of Delegates called to order by the President, Dr. J. L. Shuler.

President—"The committee on credentials is in the south room. Please present your credentials to them if you have come in since last night."

(This committee on credentials was composed of Dr. Ambrister, Dr. Slover and Dr. Moore.)

President—"The committee on resolutions consists of Dr. Long, of Duncan, Dr. Davis, Oklahoma City, and Dr. Kendall of Enid."

President—"I will read a letter from Dr. John A. Wyeth of New York." Reads letter of Dr. Wyeth regretting his inability to be present and distributed cards sent by Dr. Wyeth with picture of his polyclinic. These cards were sent as a token of friendship for the members of the Association.

A partial report of the credential committee was read by Dr. Slover as follows:

Dr. Slover—"The delegates named below have turned in their credentials and we have gone over the credentials as they have come before us and make the following recommendations that the delegates named below be seated:

Dr. Z. J. Clark, Alfalfa	Dr. J. T. Slover, Murray
Dr. M. H. Eadens, Caddo	Dr. J. H. White, Muskogee
Dr. R. M. Williams, Caddo	Dr. J. A. Nelson, McLain
Dr. F. W. Boadway, Carter	Dr. E. M. Russell, Nowata
Dr. D. W. Griffin, Cleveland	Dr. C. R. Day, Oklahoma
Dr. J. C. Johnson, Comanche	Dr. E. F. Davis, Oklahoma
Dr. McLain Rogers, Custer	Dr. A. D. Young, Oklahoma
Dr. T. J. Horsley, Greer	Dr. G. A. Wall, Oklahoma
Dr. G. F. Border, Greer	Dr. V. Berry, Okmulgee
Dr. W. Penquite, Grady	Dr. K. L. Colley, Osage
Dr. J. C. Ambrister, Grady	Dr. S. M. Richey, Pontotoc
Dr. S. P. Strother, Jackson	Dr. G. S. Baxter, Pottawatomie
Dr. J. A. Overstreet, Kingfisher	Dr. W. C. Bradford, Pottawatomie
Dr. M. O. Moore, LeFlore	Dr. D. Long, Stephens
Dr. J. C. Williams, Lincoln	Dr. L. A. Mitchell, Tillman
Dr. W. W. Rucks, Logan	Dr. W. E. Wright, Tulsa
Dr. L. A. Hahn, Logan	Dr. J. M. Workman, Woodward
Dr. T. A. Blaylock, Marshall	

If there are any other parties having credentials we will be glad to see you at once."

President—"Turn your credentials in at once if you have come in since the committee made their report so they may be working on them."

Dr. Slover—"We wish to supplement this report before it is passed upon with the name of C. W. Alexander, Cotton county."

President—"We have a partial report of the committee. What shall we do with the report? I will entertain a motion to confirm the report of the committee as far as it has gone."

Moved and seconded.

President—"It has been moved and seconded that it be received so far as it has been announced. Those in favor of this let it be known by saying 'aye.' "

Carried.

President—"If there is any business to come before this House of Delegates, please announce same now. I think in reading the minutes of the meeting that there was a resolution carried over in regard to holding the next meeting. The resolution was that the Society shall hold its election of officers on the first day of the meeting of the Society, and we will consider that you have this resolution before the House."

(Secretary reads the resolution.)

Moved and seconded that resolution be adopted.

(Controversy over whether the whole body should vote on the election of officers or whether it would just be the House of Delegates.)

Dr. Hume—"This is a delegated body and every county in the state has a representative here and we cannot violate the constitution of the American Medical Association by turning it back to the body of the house. I think we have a representative body now and do not see why this should be brought up at this time. I want to make this remark without any regard to politics."

Dr. Boadway—"I believe there is something wrong here. If we are going to be democratic this election must be based upon the membership of this Association. Now I live a long ways from here. However, there are three men here from our town, but there are towns in the county not represented here at all. Suppose this meeting were in Oklahoma City, and suppose there were some politicians in Oklahoma City who wanted to get all the officers elected from Oklahoma City. This is a representative body and this is the body that should say who the officers are to be. Just think, there are over one hundred members in Oklahoma City, members of this Society. How easy could we get those others to come in. The only way to elect the officers of this Association is to elect them by a representative body."

Day—"The discussion we have had is one, if I understand it, which has been withdrawn and is not before the House. The new motion is that we elect these officers in the ordinary way but on the first day instead of the last day."

President—"I rule that the question is out of order and inadmissible to the Association."

(Objection to the first day as day for election.)

President—"If there is anything further to be said on this question we would like to hear from you."

Doctor—"If the election is to be held on the first day of the convention, then it will be up to the delegates to be present on that day. It will not be any hardship to any one so far as I can see. If a man is a delegate he will make his arrangements to be present, and then the sec-

ond day and from that on can be given to scientific papers and that work. If you pass this resolution and make this the rule it will be to the interest of the delegates to be here on the first day."

Boadway—"I hate to get up so much, but suppose we do as the doctor says. Take my own case. I have only one day to give to this meeting. I come for the scientific part of this Association. If you put your election the first day we can see nothing of the scientific part in which we are so vitally interested."

The President reads a motion to make the election of officers on the second day. (Motion seconded.)

Boadway—"I merely made an amendment to have it the second day instead of the first day."

President—"Do you wish to make that as an amendment?"

Boadway—"Yes sir."

President—"I think we will consider that as an amendment. Can we vote on that amendment?"

Delegate—"Not until tomorrow."

President—"I think the simplest way is to vote on the resolution and see if we want it the first day."

Motion made and carried to lay this resolution on the table.

President—"I will put the question again." (Reads question again.)

President—"All favoring the tabling of this motion, stand."

(Thirty-five stand.)

"Opposed same."

(None.)

Carried.

President—"What is the further pleasure of the House of Delegates?"

Berry—"If there is no other business to come before the House I have some resolutions I would like to read."

Whereas, it is a well-known fact that our State Health Department is being used as a political machine and, Whereas, the conservation of human life is of paramount importance over every other field of endeavor, Therefore, be it resolved, that the Oklahoma State Medical Association go on record as advocating the passing of a law requiring the nomination of three candidates for County Health Officer in each county of our state by the County Medical Association, submitted to the Oklahoma State Medical Association, and that the County Judge be authorized to appoint a County Health Officer out of the aforesaid nominations.

Moved and seconded that they adjourn to meet at call of the President.

President—"We will adjourn to meet at 8:00 o'clock in the morning."

HOUSE OF DELEGATES**Wednesday, May 14.**

Address by Dr. Shuler, President.

Announcements.

Secretary reads minutes of last meeting.

A motion made and seconded that the credential committee be appointed to report tomorrow morning at eight o'clock, House of Delegates to meet at nine o'clock. Adopted.

A motion made and seconded that a committee on resolutions be appointed to consist of three. Adopted.

Council will meet immediately after this meeting.

Moved and seconded that we adjourn until eight o'clock tomorrow. Adopted.

Thursday.

Meeting called to order by Dr. J. L. Shuler, President.

Delegates asked to take the front seats.

President—"We will have a report from the Committee on Credentials."

Slover—"After reading this report if there are any delegates who have not turned in their credentials they will do so at once." (Reads list of delegates.)

President—"You have heard the report of the committee. If no objection the report will be received." (Report received.)

President—"Now I suppose a good many of you would like to go on the early trains if possible, as business calls you and you would like to get through the House of Delegates so I suppose the first thing we should proceed with is the election of officers. It is now in order for the nomination of President of Oklahoma State Medical Association."

Dr. McLain Rogers—"I want to place a nomination before the Association of a man who is the most logical man in the state. I think it would be useless for me to talk in behalf of him in this Society. All who know him know of his work in the Medical Society and his work as a delegate especially; a man who has always been on hand with his best efforts; and who has the ability and qualities for this position. Feeling that he is more logical than any man in the state I place in nomination Dr. Hume of Anadarko."

Moved that the nominations be closed and Dr. Hume be elected by acclamation.

Dr. Russell—"If we are going to have an election of President this way it should not be closed and we should give some others the chance. It has always been the custom to nominate by complimentary ballot."

President—"Motion ruled out of order. I declare the motion out of order."

Dr. Slover—"I wish at this time to place in nomination for this place a man that has been connected with the Oklahoma Medical Association since the beginning of statehood, and from the organization of this Association, and who has in every instance proven himself worthy of the confidence that has been placed in him, and while he is a young man I wish to say that we should honor ability at all times, and more especially when we find it in the young man, and I wish to place in nomination today a man whom I believe, if we honor him with this office, will fill the place with satisfaction to all. I place in nomination Dr. J. M. Byrum."

Dr. Bradford—"I would also like to put forward the name of one who has been a member of the State Association before statehood. I was not going to make this nomination, but as you all know, there are two factions in Shawnee, the former nominee being backed by the State Health Department. We have a society in Pottawatomie county second to none in this state, or in the United States. I think we ought to be judged by our candidates. The man I am speaking of, as I have said before, has been identified with the County Association and the State Association since before statehood. He has been an officer in the county society and I have worked hand and glove with him since I have been in the Society. I would like to nominate Dr. J. A. Walker."

President—"Are there any more nominations? If not, I appoint Dr. Boadway, of Ardmore, and Dr. J. L. Austin, of Durant, to take the vote. I will ask the Secretary to name those who are to vote outside of those who have been called." (Secretary reads names of delegates coming in after reading former names.)

President—"Now the first ballot will not be declared an election even though the one receiving the highest vote should receive the majority. It is a custom to declare the first ballot a complimentary vote."

Result of vote, first ballot: Dr. Byrum, 33; Dr. Hume 23; Dr. Walker, 8.

President—"The announcement of this ballot is complimentary. You will now make a ballot again for president. Let us be as brief as we can. The ballot will be for Dr. Hume and Dr. Byrum, as it is customary to drop the last man."

Result of vote: Dr. Byrum, 34; Dr. Hume, 29.

Dr. Hume—"I move that the election of Dr. Byrum be made unanimous."

President—"Those favoring that motion let it be known by saying 'aye.' "

Motion carried.

President—"We will now take up the matter of where we will meet next year."

Dr. Rucks—"On behalf of the Logan County Medical Society, I wish to ask you to meet at Guthrie. We will try to give you a good time.

We will be very glad to serve as your hosts. I also have a letter from the Chamber of Commerce asking you to be at Guthrie. I also have a letter from the Mayor of Guthrie. Our town is fairly well located to most of you and again I invite you to meet with us next year."

President—"We will let this rest for awhile. We will now have nomination for Vice President."

Moved and seconded that Dr. Kendall be nominated for Vice President

Dr. Lewis—"I would like for the Oklahoma Medical Association to know that the southern part of this state is on the map, and I would like to see some nominee from that part of the state, so I nominate Dr. D. Long of Duncan.

Seconded.

Dr. Slover of Sulphur is nominated.

Seconded.

Dr. Barnes is nominated.

Seconded.

President—"It has been moved and seconded that the nominations cease and we proceed to ballot. The three highest shall be first, second and third Vice President."

Result of election: Dr. Kendall, 35; Dr. Long, 49; Dr. Slover, 51; Dr. Barnes, 35.

President—"By the vote Dr. Slover is elected First Vice President Dr. Long Second Vice President and there is a tie between Dr. Kendall and Dr. Barnes."

(Decided that Dr. Barnes and Dr. Kendall draw for the decision, which resulted in Dr. Barnes being Third Vice President.)

President—"Nominations for Secretary, Treasurer and Editor of the State Medical Journal."

President—"Moved and seconded that Dr. C. A. Thompson be elected by acclamation for the office of Secretary, Treasurer and Editor of the State Medical Journal, and the nominations be closed." Carried.

Moved and seconded that Dr. C. A. Thompson be elected by acclamation for the office of Secretary, Treasurer and Editor of the State Medical Journal, and the nominations be closed.

Dr. Bonham—"I would like to nominate a deserving man, one who has done much for the people of the state, and who has been a member of the State Medical Society since its beginning, Dr. J. C. Mahr."

President—"Nominations closed before the nomination of Dr. J. C. Mahr."

A motion was made and seconded that the nominations close and the vote be cast by the President for Dr. Thompson.

President—"It is moved and seconded that the President cast the vote for Dr. Thompson as Secretary, Treasurer and Editor of the State Medical Journal.

President—"By this vote you have delegated the President to cast the entire vote for Dr. Thompson and I cast the vote herewith."

President—"The Councilor from the 5th district is to be elected for a term of three years. Now the delegates may get together and nominate some one. I believe that we might expedite matters by taking up the place of meeting while they are selecting their nominee."

(Delegates get together to select a Councilor for the 5th District.)

President—"Now we will select a place for the next meeting. If anybody has a speech to make you can make it now. We already have Guthrie nominated as a place of meeting. Are there any more?"

Dr. Hahn—"As a member of the Logan County Association I would like to second the invitation from the city of Guthrie."

(Committee report that they have selected Dr. Walton H. McKenzie as Councilor for the 5th district.)

President—"The 5th district has nominated Dr. W. H. McKenzie for Councilor."

Moved and seconded that Dr. McKenzie be elected as councilor of the 5th district. Carried.

President—"The next thing in order is to elect the delegate to the American Medical Association for 1914-1915."

Moved and seconded that Dr. W. E. Wright of Tulsa be elected. Moved and seconded that Dr. Wright be elected by acclamation and the Secretary cast the vote for the entire society. Carried. Secretary casts vote.

President—"Those in favor of the selection of Guthrie as a place to hold our next meeting, let it be known by saying 'aye.' "

Moved and seconded that the Councilor be directed to organize a district medical society in the 5th Councilor District.

President—"Anything to be said upon the subject?"

Adopted.

Secretary reads resolution on necrology. Adopted.

Dr. Maupin—"I make a motion that a permanent committee be appointed on transportation."

Seconded.

President—"It is moved and seconded that a permanent committee on transportation, looking after transportation and arrangements as to the next meeting, be appointed. We should go into the matter and get a good committee that will work."

Adopted.

President—"Will the Committee on Resolutions be ready to report right away? If not, while we are waiting on the Committee on Resolutions Dr. Day might make some statement in regard to the Legislative committee."

Dr. C. R. Day stated, among other things, that in his opinion the Legislative committee should be a permanent one, and selected for an advance of the time for action on its part. (This is now the rule under an amendment offered by the Secretary at Tulsa and adopted in Muskogee.)

The Resolution committee offered the following resolutions which were adopted:

1. Whereas, Malpractice suits have become so common we request the members of this Association to do all in their power to discountenance and prevent such actions, and the President be directed to appoint a committee of three to investigate and formulate a plan for the establishment of a medical defense system to be a part of this Association.

2. Whereas, Our penal and eleemosynary institutions are crowded with physical and moral degenerates, we recommend the sterilization of the unfit.

3. Whereas, The State Legislature has wisely passed the Bond marriage law, we suggest certain amendments which would greatly add to the efficiency as follows: 1. That physical examination should apply to females as well as males. 2. That in view of the fact, notwithstanding, the several good points in the above law, it is possible for unfit persons to obtain health certificates from certain unprincipled physicians, we recommend that there be a non-partisan board of three regular practicing and licensed physicians appointed in each county by the Governor to pass on the health qualifications of all candidates for marriage.

4. Whereas, Medical inspection and examination of public school children so far as it has been carried out in certain cities of this state, has proven to be beneficial, we therefore recommend that medical inspection and examination apply to all the public schools of the state and that teachers, as well as pupils, be included in such examinations.

5. We recommend the establishment of an institution for the treatment of tuberculosis.

6. In view of the growing evil of fee-splitting, we recommend that the medical law be amended that the license of any physician who secretly divides a fee shall be revoked.

7. Be It Resolved, That in view of the evidence produced in the Marshall County Court, that we ask His Excellency, Governor Cruce, not to grant the parole asked for by O. O. Gobin, who was convicted for practicing medicine without a license in that County, and who now is seeking executive clemency.

8. We recommend an appointment of a committee by the President of this Association, to confer with the proper authorities regarding railroad rates of the next annual meeting.

9. Resolved, That all exhibits must be exhibited only by permission or authority of the Secretary. That no article or compound shall be al-

lowed among the exhibits, which article is held as unethical or improper by the Council on Pharmacy and Chemistry of the A. M. A.

10. Whereas, A new medical practice law has recently been passed, having a bearing on this matter, we recommend that the Council call the attention of the various County Attorneys to the fact that many Chiropractors and magnetic healers are practicing medicine within the meaning of this law.

11. Whereas, The State of Oklahoma now maintains a splendid Medical School, which for efficiency has no peer in the Southwest, and

Whereas, The continued success of this institution depends largely upon the full and hearty co-operation of the home folks, viz., The Oklahoma Profession, and

Whereas, The Honorable Lee Cruce, overnor of Oklahoma, has seen fit, in his great wisdom, to appoint on the State Board of Education a very distinguished, highly respected and learned member of the medical profession of Oklahoma,

Therefore, Be It Resolved by the Oklahoma State Medical Association meeting in annual session this 13th day of May, 1913, that this Society tender to the Honorable Lee Cruce its sincere and heartfelt thanks for his most gracious recognition of the medical profession, and,

Be It Resolved, That this Society tender to Dr. F. B. Fite a hearty congratulation on his appointment as a member of this Board and ask that because of his splendid judgment, long acquaintance and high professional standing of many years in Oklahoma, that his advice be freely sought and his opinion as to the needs of the Medical Department of the State University be given very great consideration, and

Be It Further Resolved, That a copy of these resolutions be transmitted to Governor Cruce, Dr. S. D. Brooks, President of the University, and to the Honorable R. H. Wilson, President of the State Board of Education.

D. LONG, Chairman,
W. L. KENDALL,
EDW. F. DAVIS.

12. Resolved, That a special vote of thanks be extended Dr. J. L. Shuler, President, and Dr. C. A. Thompson, Secretary, for their extraordinary services as President and Secretary of the Association, and management of the Journal during the past year.

13. Whereas, It has been the policy of many State Medical Associations to devote the programme of its meetings to the papers and products of its own members,

Therefore, Be It Resolved, That the Secretary be and is hereby instructed to notify each Section Chairman that it is the policy of this Association to produce the papers and writings of its own members only, and that they be requested to co-operate in this matter by making up

their programme from members of the Oklahoma State Medical Association only, and

Be It Further Resolved, That whenever any Chairman of the Association deems it of sufficient importance to do so, that he shall request the Secretary to ask the Council for permission to add the name of any well-known physician, not a member of the Oklahoma State Medical Association, to the programme, and the production of all non-members shall be added to the programme by that method only.

14. We endorse the efforts of the State Department of Health, which has accomplished a great deal of good, and rendered the people of this state valuable service. Resolved that this be published in the Journal of this body.

15. We hereby thank the local profession and citizenship of Emd for their hospitality and many courtesies during this session.

Necrological.

We, the Committee on Necrology, report the following who have died since our last annual meeting at Shawnee, May, 1912:

Dr. J. H. Carson, Coal County, died March 13, aged 54 years.

Dr. J. M. Turner, Hoyt, Haskell County, died November 5, aged 55 years.

Dr. Frank P. Osburn, Dewey County, aged 48 years.

Dr. A. W. Gray, Pauls Valley, died November 15, aged 58 years.

Dr. W. N. Minter, Grady County.

Dr. W. P. Snider, died at Bailey, aged 52 years.

We, your committee, ask that the Oklahoma Medical Association extend the following resolution:

The heartfelt sympathy of this Association is hereby extended to the families of the deceased members of our profession and that our Secretary send each family copies of these resolutions and that the name of each deceased member and these resolutions be made a part of the permanent record of our Association.

J. B. SMITH, Chairman,

A. D. YOUNG,

GEO. A. BOYLE,

Committee.

The above resolution was adopted by this Association.

President—"If there is nothing more to come before the meeting of the House of Delegates, a motion to adjourn will be in order."

Moved and seconded that we adjourn. Adopted.

President—"I wish to announce that Dr. Sophian, of Kansas City, will give a lecture in this room right after adjournment, on the subject of Cerebro-Spinal Meningitis, and we would like for as many of you to remain as is possible."

Adjourned.

REPORT OF LEGISLATIVE COMMITTEE.

To the Officers and Members of the Oklahoma State Medical Association,
Greeting:

In submitting a report of the work of your Legislative committee we acknowledge with regret our failure to accomplish things we had hoped to achieve. We will, however, attempt to point out the causes for such failure, offering suggestions to those who may have the work in charge in the future, and at the same time endeavor to justify the action of the committee in the work done.

The only bill your committee was attempting to have enacted into law was a definition of what constitutes the practice of medicine, a copy of which is hereto attached, and we were successful in having this bill passed by the Senate with but little difficulty and we are convinced that the influence of the medical profession throughout the state had molded a sentiment in the minds of the members of the House favorable to the passage of our bill if time would have permitted its being brought before them.

The adoption of the Harris-Day Code at this session of the legislature gives us a definition of the Practice of Medicine, but, in the opinion of your committee, this is not broad enough. We admit, however, that it is an improvement over what we had before. Some attorneys give the opinion that it will reach all those who publicly profess to be physicians and to treat the sick.

Attached to this report is a copy of this definition as given in the Harris-Day Code.

If any legislation is ever to be accomplished on behalf of the medical profession it will be necessary to create a public sentiment in our favor and to see that candidates for the legislature are pledged to support our measures before their names are placed on the ballot. This necessitates the beginning of our work prior to the state primaries. In a number of counties the physicians were wide awake last year and were successful in securing such pledges from the candidates who were elected.

The first work outlined by the committee was to obtain the assistance of the doctors all over the state to ascertain as nearly as possible the views of each member of the legislature upon matters pertaining to the medical profession. To procure this information we deemed it necessary to know who was the family physician of each member, and the school of practice to which such physician belonged; also to know the church affiliation, if any, of the legislators, and, in many instances, the church affiliation of the wives of the married members; to obtain the names of political advisors of those in the legislature, and to know the sentiment of those advisors relative to the medical profession. To secure all this information in detail was quite a task and at this time we desire to thank the members of the profession all over the state who responded promptly and fully to the inquiries made by your committee. A supple-

mental sheet of this report contains the names and addresses of the doctors to whom this committee is indebted for assistance rendered in this feature of the work, as well as using their influence with the representatives of our state in our behalf.

We reluctantly mention the fact that a number of physicians to whom we forwarded letters of inquiry, enclosing stamped, self-addressed envelopes for the convenience of their reply, failed through neglect, or refused, to respond. The names of such physicians are not included herein.

Had your committee been in possession of the information received through the medium of these letters the time spent in obtaining the same after the convening of the session could have been spent in urging the importance of the passage of our bill, and, as we have already suggested, we feel confident that the sentiment of the legislators ten days before adjournment was such that we could have passed our measure with ease had we been able to get it up for consideration at that date. During the latter part of the session the importance of investigations had burdened the legislature to such an extent that numerous bills along other lines died on the calendar just as our measure did.

We were confronted again this year with a strong lobby supporting the Chiropractors who were attempting to pass the same measure which they have endeavored to pass at each session of the legislature since statehood, giving them a separate Board of Examiners and declaring their system a science. Through the united efforts of the medical profession throughout the state, and some of our most prominent state officials, this bill died in the committee with no one to speak in its behalf. The desertion of this cause at the crucial period created quite a stir in the camp of the Chiropractors. In order to cause some one to come from under cover they had the famous "Fee" Bill introduced, and when this was treated as a joke they were again compelled to guess. The real truth of the situation was that many members of the legislature were very desirous of a close position to the pie counter and some one higher up had said that of all frauds in the state the Chiropractor's was the greatest, and in plain words had expressed his opinion of any one who espoused their cause.

Quite a number of the doctors in different localities were anxious to keep posted as to what the committee was doing and because we were not able to supply copies of our bill seemed to feel that we were not working in earnest to secure this legislation, when as a matter of fact so much time was required in tabulating the information sought in connection with every member of both Houses it was impossible to furnish the copies mentioned for general distribution, which we regret.

A few men in our Association apparently understood that the work of the committee consisted in getting behind such measures as might be presented by individuals interested in certain legislation which would be advantageous to our profession. In this regard the members of your

Legislative Committee used their influence personally for all bills meeting their approval, but such action was not taken as the action of the committee. The introduction of such bills was misleading to the members of the legislature inasmuch as they could not understand why all such bills were not from the same source.

In conclusion, permit us to suggest, first: That our system of operation be changed in future so that our Legislative committee can be appointed several months prior to the State Primary Elections, and that they be authorized to draft such bills as they deem proper and that copies of these bills be sent to every County Society. Let the Legislative committee from each County Society ascertain the attitude of all candidates toward such bills and report to the County Society, so that the members can know how to proceed. With this preliminary work done, when the legislature convenes your committee will have nothing left to do but push your measures through that body.

Second. That members of the Society refuse to get back of any other measure until such bills have passed both Houses.

J. Q. NEWELL,

Chairman Legislative Committee.

JOHN W. DUKE,

Member Legislative Committee.

CURTIS R. DAY, Secretary Legislative Committee.

J. L. SHULER, President.

C. A. THOMPSON, Secretary.

GENERAL NEWS.

Dr. A. Sophian attended the annual meeting and delivered a short talk to the session on Medicine and later to the Health Officers' Association in the parlors of the American Hotel.

Dr. Carl Puckett, of Pryor, who has been absent in New York for some time attending the Post-Graduate, will return about the first of June.

Drs. LeRoy Long, McAlester, and Geo. Kilpatrick of Wilburton will attend the European Surgical Congress this year in London and contemplate making an extended stay on the Continent visiting the principal clinics.

Payne County Medical Society held a very good meeting at Stillwater, May 6th. Among the papers noted on the program were those of Dr. Horace Reed, Oklahoma City, on "Prostatic Hypertrophy;" Dr. L. J. Moorman, Oklahoma City, on "The Value of Tuberculin in Diagnosis" and a paper with subject not announced by Dr. W. B. Hudson of Yale.

A demonstration inspection of one of Enid's public schools was held during the annual meeting by the State Commissioner of Health and his assistants for the purpose of demonstrating the comparative efficiency of an inspection by volunteer physicians and those specially trained for the duties incident to inspection.

The Sixth Councillor District Medical Society was organized under the direction of Dr. L. T. Strother at Tulsa, April 29th.

Dr. G. H. Butler of Tulsa was elected President and Dr. J. V. Athey, Bartlesville, Secretary. This Society starts out under good auspices and should be able to accomplish first-class work; its membership will be drawn from the important little cities of Tulsa, Bartlesville, Sapulpa, Nowata, Claremore, Pryor and Vinita.

Major Henry M. Hallock, Medical Officer in charge of the Hot Springs reservation, committed suicide by shooting himself, May 19th. This astounding piece of news will be received with regret throughout the United States, by men who knew Major Hallock, and were acquainted with his energetic methods. It is regrettable that this death was probably due to the criticism of a yellow journal, published in Hot Springs, that criticised Major Hallock because the government recently built a very fine residence for the director. It is said that he was suffering from melancholia, and this condition, irritated by unjust criticism, brought about his death.

NEW BOOKS

THE OPERATING ROOM AND PATIENT.

(Third Edition Rewritten and Enlarged.)

The Operating Room and the Patient. By Russell S. Fowler, M. D., Chief Surgeon First Division, German Hospital, Brooklyn, New York. Third Edition Rewritten and Enlarged. Octavo volume of 611 pages with 212 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$3.50 net.

This is a very ably prepared work on subjects of use and interest to the hospital physician and nurse, with especial reference to the needs of the operating room and the patient prior to and following operation, with much suggestion as to the care and handling of emergency cases.

The work consists of twenty-three chapters, the principal of which give close attention to the operating room; preparation of instruments and supplies; pre-operative preparation and the primary dressing; the after treatment and care of the wound; hemorrhage and complications of wound infections; special complications due to antisepsis; pressure and circulatory changes; with an exhaustive direction as to the position and preparation of the patient for the different special operations the surgeon is called upon to handle.

SURGICAL CLINICS OF JOHN B. MURPHY, M. D.

(Volume II. Number II. April 1913.)

The Surgical Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago. Volume II. Number II. (April 1913). Octavo of 171 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Published Bi-Monthly. Price per year: Paper, \$8.00. Cloth, \$12.00.

This issue of Murphy's Clinics contains a remarkably good series on Pyloric Ulcer, Duodenal Block, Active Duodenal Ulcer, Gastric Ulcer, the latter a talk by Mr. Robert Milne, F. R. C. S., London. These clinics with others in this book, make the number especially interesting to those considering gastric and duodenal ulcer and their phases.

Otherwise the book is full of the usual good things found in Murphy's Clinics; Osteomyelitis of Tibia, a considerable amount of bone work of varied character, Recurrent Appendicitis and similar matters of interest to the surgeon.

GOLDEN RULES OF DIAGNOSIS AND TREATMENT.

By Henry A. Cables, B. S., M. D., Professor of Medicine and Clinical Medicine of the College of Physicians and Surgeons; Consultant at Jefferson Hospital; Formerly House Physician at Alexian Brothers Hospital, St. Louis. Second Edition, revised and rewritten, cloth 318 pages, price, \$2.25, C. V. Mosby Company, St. Louis, 1913.

This book is in the same clever class and style as the former issuances of the Golden Rule Series; it is full of little hints and observations, to the point, on the treatment and diagnosis of disease.

THE NARCOTIC DRUG DISEASES AND ALLIED AILMENTS.

Pathology, Pathogenesis and Treatment by Geo. E. Pettey, M. D., Memphis, Tennessee, Member Memphis and Shelby County Medical Society, Tennessee State Medical Association, American Medical Association, Tri-State Medical Association of Mississippi, Arkansas and Tennessee; also Mississippi Valley Medical Association, Southern Medical Association, and of the American Society for the Study of Alcohol and Narcotic Diseases. Illustrated, Cloth, 516 pages, Price \$5.00. Philadelphia, F. A. Davis Company, 1913.

This book is dedicated "To the Man who is Helpless and yet Hopes, who Longs for Freedom, who Strives against Odds Unequal while no One Seems to See, or Care to Help, This Book is Offered as a Ground for Hope, a Rift in the Clouds, a Helping Hand."

Dr. Pettey takes the modern view in his work that drug habitues are, in most instances, blameless victims of disease, and he treats narcotic addictions as diseases, toxemias, of drug and auto and intestinal origin, the management of which belong to the field of internal medicine rather than neurology. On this basis he enters very closely into the treatment of the

prevalent acute complications and affections these sufferers are prone to have.

The author considers very minutely the systems of treatment and gives the greatest space allowable to the various drugs used in the treatment of such conditions. We predict for the book a very favorable reception.

REPORT OF EXAMINATION OF OKLAHOMA STATE BOARD OF MEDICAL EXAMINERS.

Name.	School of Graduation.	Date	Per Cent
Mathew Karasek.....	Rush Medical College.....	1908	88.....
Isaac F. Clark.....	Los Angeles Col. P. & S.....	1912	77.....
Robt. L. Westover.....	Indiana Medical College.....	1898	80.....
Welcome B. Tilton.....	Northwestern University.....	1912	81.....
Christopher H. Russell.....	Birmingham Medical Col.....	1912	79.....
Robert L. Browning.....	Birmingham Medical Col.....	1911	83.....
John F. Clark.....	American School of Osteo.....	1913	71.....
J. H. Noah.....	Little Rock Col. P. & S.....	1911	70.....
Bert L. Morrow.....	Memphis Hosp. Med Col.....	1911	79.....
Archie A. Lippincott.....	American School of Osteo.....	1912	75.....
Calvin E. Bradley.....	Barnes Medical Col.....	1905	79.....

The following were licensed by Reciprocity:

	Reciprocated From
Moses J. Ferguson.....	University of Nashville.....1905
Alonzo L. Proffitt.....	Lincoln Memorial Univ.....1910
Chas. R. Wright.....	Memphis Hosp. Med. Col...1911
Moorman O. Robertson.....	University of Louisville.....1911
John B. Lansden.....	University of the South.....1901
Joseph B. Hix.....	University of Nashville.....1909
Calhoun Dolor.....	Birmingham Medical Col...1911
James Elmo Smith.....	University of the South.....1908

The following were re-registered according to Act of 1908:

E. E. Jenks.....	Central Medical Col.....1902
Alta E. Cullen-Bardner.....	Northwestern University...1892
R. M. Creswell.....	Dallas Medical Col.....1903
Chas. E. Davis.....	Northwestern University...1898

Oklahoma now reciprocates with the following states under both qualifications, Nos. 1 and 2: New Mexico, Texas, Nebraska, Nevada, South Dakota, Michigan, Wisconsin, Arkansas, Mississippi, Kentucky, Tennessee, North Carolina and West Virginia.

ROSTER OF MEMBERS OF THE OKLAHOMA STATE MEDICAL ASSOCIATION

(Corrected up to May 20, 1913)

ADAIR COUNTY

Barnes, C. C.....	Westville	Robinson, Jas. A..	Dutch Mills, Ark.
Beard, D. A.....	Westville	Walker, C. F.....	Wauhatchie
Collins, B. F.....	Stilwell	Walters, C. A.....	Stilwell
Diekey, G. W.....	Westville	Wharton, J. L.....	Oaks
Lane, J. N.....	Westville	Williams, T. S.....	Stilwell
Robinson, C. M.....	Stilwell	Woodruff, P. C.....	Stilwell

ALFALFA COUNTY

Ames, J. B.....	Burlington	Kiebler, W. G.....	Goltry
Barton, N. G.....	Carmen	Lancaster, L. T.....	Cherokee
Bartlett, R. E.....	Aline	Lile, H. A.....	Aline
Clark, Z. J.....	Cherokee	Ludlum, E. C.....	Carmen
Gaume, J. M.....	Byron	Medaris, J. H.....	Helena
Growden, S. B.....	Cherokee	Pence, R. W.....	Jet
Hibbard, J. S.....	Cherokee	Reichley, E. J.....	Helena
Kershaw, R. B.....	Lambert	Rhodes, T. A.....	Goltry
Tucker, J. M.....	Carmen		

ATOKA COUNTY

Briggs, T. H.....	Atoka	Pinson, Murrell.....	Atoka
Fulton, J. S.....	Atoka	Rollins, J. W.....	Atoka
Gardner, C. C.....	Tushka	Rose, C. C.....	Stringtown
Henderson, D. D.....	Caney	Rowley, E. A.....	Atoka
McCarley, T. H.....	Atoka	Stiewig, J. R.....	Tushka

BECKHAM COUNTY

Berry, H. A.....	Elk City	McCreery, Robert C.....	Erick
Baker, J. C.....	Sayre	Speed, H. K.....	Sayre
Denby, R. C.....	Carter	Standifer, J. E.....	Elk City
Jester, J. A.....	Elk City	Tedrowe, C. W.....	Elk City
Johnson, F. R.....	Elk City	Wendle, O. N.....	Sayre
Low, A. G.....	Elk City	Wells, T. J.....	Erick
Levi, M. H.....	Elk City	Warford, J. D.....	Erick
McComas, J. M.....	Elk City	Waltrip, P. M.....	Texola
Yarbrough, J. E.....	Erick		

BLAINE COUNTY

Barnett, J. S.....	Hitchcock	Herrick, R.	Watonga
Blender, H.....	Okeene	Leisure, J. B.....	Watonga
Browning, J. W.....	Geary	Matlock, T. T.....	Greenfield
Buchanan, M. W.....	Watonga	Stough, D. F.....	Geary
Doty, H. W.....	Homestead	Tracy, C. M.....	Sentinel
Green, G. T.....	Okeene	Wishard, S. G.....	Watonga

BRYAN COUNTY

Allen, J. R.....	Caddo	Mullenix, C. S.....	Robertia
Armstrong, D.....	Mead	Park, J. F.....	Durant
Austin, J. L.....	Durant	Pate, J. D.....	Durant
Cain, P. L.....	Durant	Pope, H. P.....	Wade

Fuston, H. B.....Blue
 Girdner, W. H.....Durant
 Grassham, R. H.....Caddo
 Harrington, J. H.....Albany
 Keller, J. R.....Calera
 Keller, M. S.....Calera
 Lively, C. O.....Albany
 McCalib, D. C.....Utica
 McCarley, W. H.....Colbert
 Yeates, H. Wesley.....Durant

Rappolee, H. E.....Caddo
 Rushing, G. M.....Durant
 Shuler, Jas. L.....Durant
 Smith, J. B.....Durant
 Taliaferro, C. F.....Bennington
 Terrell, J. C.....Durant
 Wamm, C. E.....Albany
 Wells, A. J.....Calera
 Yeiser, C. C.....Colbert

CADDO COUNTY

Anderson, P. H.....Anadarko
 Bird, Jesse.....Cement
 Blair, S.....Apache
 Booth, W. E.....Sickles
 Brown, B. D.....Apache
 Campbell, Geo. W.....Anadarko
 Colby, Geo. B.....Gracemont
 Dail, A. W.....Cement
 Dinkler, F.....Fort Cobb
 Downs, Ed W.....Hinton
 Edens, M. H.....Verden
 Ewing, W. A.....Eakley
 Hawn, W. T.....Binger
 Hume, Chas. R.....Anadarko

Kerley, W. W.....Anadarko
 Lane, C. W.....Miles, Washington
 McClure, P. L.....Ft. Cobb
 McVey, Geo. M.....Cyril
 Myers, P. B.....Lookeba
 Rector, R. D.....Anadarko
 Rogers, F. W.....Carnegie
 Sanders, P. L.....Carnegie
 Shoun, D. A.....Albert
 Weiser, D. D.....Alden
 Westermeier, Geo. W.....Anadarko
 Willard, A. J.....Cyril
 Williams, R. W.....Anadarko

CANADIAN COUNTY

Aderhold, T. M.....El Reno
 Arnold, C. D.....El Reno
 Brown, H. C.....Okarche
 Catto, W. B.....El Reno
 Clark, F. H.....El Reno
 Hatchett, J. A.....El Reno
 Koons, R. F.....El Reno
 Lynde, L. W.....Okarche
 Masters, H. C.....Mingo
 Miller, W. R.....Calumet

Muzzy, W. J.....El Reno
 Richardson, D. P.....Union City
 Riley, James T.....El Reno
 Ruhl, N. E.....Piedmont
 Runkle, R. E.....El Reno
 Sanger, S. S.....Yukon
 Taylor, G. W.....El Reno
 Tompkins, J. E.....El Reno
 Wolfe, L. G.....Okarche

CARTER COUNTY

Amos, H. C.....Hewett
 Ballard, A. E.....Lone Grove
 Barnwell, J. T.....Graham
 Boadway, F. W.....Armore
 Bogie, W. T.....Armore
 Booth, T. S.....Armore
 Cox, J. L.....Armore
 Gillispie, L. G.....Springer
 Goodwin, G. E.....Armore

Hardy, Walter.....Armore
 Hathaway, W. G.....Pooleville
 Henry, Robt. H.....Armore
 Higgins, H. A.....Springer
 McNeese, J. C.....Armore
 Smith, J. H.....Healdton
 Taylor, Dow.....Woodford
 von Keller, F. P.....Armore
 Willard, Robt. S.....Brock

CHEROKEE COUNTY.

Allison, J. S.....Tahlequah
 Baird, A. A.....Park Hill
 Blake, G. W.....Tahlequah
 Blake, Ed W.....Tahlequah
 Coffman, La Fayette.....Peggs
 Duckworth, J. T.....Tahlequah

Hill, Israel.....Peggs
 Johnson, J. J.....Moodys
 McCurry, L. E.....Tahlequah
 Peterson, C. A.....Tahlequah
 Thompson, J. M.....Tahlequah

CHOCTAW COUNTY

Askew, E. R.....	Hugo	Shull, R. J.....	Hugo
Cock, W. S.....	Hugo	Swearingin, C. H.....	Hugo
Fling, Perry A.....	Hugo	Walker, I. D.....	Antlers
Harris, G. E.....	Hugo	White, H. H.....	Hugo
John, W. N.....	Hugo	Williams, C. O.....	Grant
Miller, J. S.....	Hugo	Wright, H. L.....	Hugo
Moore, J. D.....	Sawyer		

CLEVELAND COUNTY

Bobo, Charles S.....	Norman	Griffin, D. W.....	Norman
Capshaw, Walter L.....	Norman	Hirschfield, A. C.....	Norman
Childs, H. C.....	Noble	Hoshall, J. L.....	Franklin
Clifton, G. M.....	Norman	Lowther, R. D.....	Norman
Day, Lewis.....	Norman	Thacker, Robt. E. Lee...	Lexington
Ellison, Grayfree.....	Norman	Thurlow, A. A.....	Norman
Erwin, F. B.....	Wellston		

COAL COUNTY

Brown, W. E.....	Lehigh	Hipes, J. J.....	Philpiss
Cates, Albert.....	Centrahoma	Logan, W. A.....	Lehigh
Clark, J. B.....	Coalgate	Sadler, F. E.....	Coalgate
Cody, R. D.....	Centrahoma	Taylor, E. F.....	Clarita
Goben, H. G.....	Lehigh	Wallace, W. B.....	Coalgate

COMANCHE COUNTY

Barber, G. S.....	Lawton	Lewis, J. L.....	Lawton
Brashears, Jackson.....	Lawton	Malcom, J. W., 321 D Ave..	Lawton
Gamble, J.	Elgin	Mead, W. B.....	Lawton
Gooch, E. S., 321 D Ave...	Lawton	Meeker, Edwin I.....	Lawton
Gooch, L. T., 321 D Ave...	Lawton	Milne, L. A., 324 D Ave....	Lawton
Hitch, W. N., 421 D Ave...	Lawton	Mitchell, E. B., 321 D Ave..	Lawton
Johnstone, J. C., 409 D Ave..	Lawton	Myers, D. A.....	Lawton
Knee, L. C., Hammond Bldg....		Shoemaker, Ferdinand, 1511 Boston	
.....	Lawton	.....	Muskogee

COTTON COUNTY

Alexander, C. W.....	Temple	Jones, M. A.....	Walter
Clark, M. T.....	Temple	Lawlis, William.....	Randlett
Dice, R. J.....	Randlett	McKinney, Howard.....	Temple
Fuller, T.....	Devol	McCallum, Chas.....	Randlett
James, G. M.....	Walter	Webb, G. O.....	Temple

CRAIG COUNTY

Adams, F. M.....	Vinita	Mitchell, R. L.....	Vinita
Bagby, Louis.....	Vinita	Neer, C. S.....	Vinita
Craig, J. W.....	Vinita	Staples, J. H. L.....	Bluejacket
Hughson, F. L.....	Vinita	Stough, D. B.....	Vinita

CREEK COUNTY

Ament, C. M.....	Sapulpa	Garland, H. S.....	Sapulpa
Bone, J. Wade.....	Sapulpa	Hoover, J. W.....	Sapulpa
Briney, H. W.....	Bristow	Justice, H. B.....	Sapulpa
Coppedge, O. S.....	Depew	Longmire, W. P.....	Sapulpa
Croston, G. C.....	Sapulpa	McCallum, C. L.....	Sapulpa

Schwab, B. C.....Sapulpa
 Sweeney, R. M.....Sapulpa
 Wheeler, F. R.....Mamford

Wells, J. M.....Newby
 Wetzel, Geo. H.....Sapulpa

CUSTER COUNTY

Butler, T. J.....Weatherford
 Comer, M. C.....Arapaho
 Davis, S. C.....Weatherford
 Frizzell, J. T.....Butler
 Gordon, J. M.....Weatherford
 Gossam, K. D.....Custer
 Henson, T. B.....Thomas
 Lamb, Ellis.....Clinton

Marshall, N. M.....Butler
 McBurney, C. H.....Clinton
 Murray, P. G.....Thomas
 Parker, W. W.....Custer
 Parker, O. H.....Custer
 Rogers, McLain.....Clinton
 Whitacre, F. S.....Butler
 Williams, J. J.....Weatherford

DEWEY COUNTY

Brace, A. J.....Camargo
 Gore, V. M.....Taloga
 Hughes, E. J.....Taloga
 Lightfoot, W. W.....Fay
 Loyd, G. M.....Lenora

Murray, L. P.....Putnam
 Powell, J. P.....Cestos
 Rone, K. R.....Camargo
 Seba, W. E.....Leedy
 Wright, O. W.....Putnam

ELLIS COUNTY

Newman, O. C.....Shattuck

Sturdivant, John F.....Perry

GARFIELD COUNTY

Aitken, W. A.....Enid
 Baker, J. W.....Enid
 Barnes, J. H.....Enid
 Bantros, C. E.....Enid
 Boyle, Geo. A.....Enid
 Brown, R. A.....Wankomis
 Cotton, L. W.....Enid
 Cooper, J. M.....Enid
 Davis, Frank P.....Enid
 Feild, Julian.....Enid
 Franeiseo, J. W.....Enid
 Hudson, F. A.....Enid
 Jenkins, S. M.....Enid
 Jones, Walter M.....Enid
 Kelso, M. A.....Enid
 Looper, S. A.....Garber
 Lowe, Fred.....Covington

Lukens, C. J.....Enid
 Mahoney, J. E.....Enid
 Mayberry, Ed.....Enid
 McKenzie, H. B.....Enid
 McLean, N.....Breckinridge
 Mayberry, S. N.....Enid
 Melnis, A. L.....Enid
 McKee, E. N.....Enid
 McKenzie, W. H.....Enid
 Orelup, C. E.....Enid
 Scott, S. F.....Waukomis
 Smith, P. A.....Enid
 Shannon, H. R.....Enid
 Thompson, C. E.....Enid
 Wilkins, A. E.....Covington
 Wolff, E. J.....Waukomis

GARVIN COUNTY

Baker, R. L.....Wynnewood
 Branum, T. C.....Pauls Valley
 Calloway, John R. Mesealero, N. M.
 Calloway, J. R.....Pauls Valley
 Darst, John.....Wynnewood
 Gaddy, Lewis.....Stratford
 Hailey, E. L.....Stratford
 High, W. C.....Maysville
 Johnson, G. L.....Pauls Valley
 Keever, A. P.....Lindsay
 Lain, E. H.....Paoli
 Lindsay, N. H.....Pauls Valley

Lindsey, J. K.....Elmore City
 Matheney, J. C.....Lindsay
 Markham, H. P.....Pauls Valley
 McClure, J. B.....Lindsay
 Morton, E. L.....Hennepin
 Patterson, Price.....Maysville
 Ralston, B. W.....Lindsay
 Robinson, A. J.....Pauls Valley
 Robberson, M. E.....Brady
 Settles, W. E.....Wynnewood
 Shi, A. H.....Stratford
 Shelton, J. W.....Pauls Valley

Struble, Andrew.....Pauls Valley
 Sullivan, Ernest.....Maysville
 Taylor, J. I.....Robberson
 Tucker, J. W.....Purdy

Waller, L. T.....Paoli
 Webster, M. M.....Stratford
 Wilson, S. W.....Lindsay
 Wilson, H. P.....Wynnewood

GRADY COUNTY

Ambrister, J. C.....Chickasha
 Barry, W. R.....Bradley
 Boon, U. C.....Chickasha
 Bledsoe, Martha, 310½ Chickasha AveChickasha
 Cook, H. W.....Chickasha
 Coulter, T. B.....Chickasha
 Downey, D. S.....Chickasha

Hampton, P. J.....Rush Springs
 Hume, R. R.....Minco
 Leeds, A. B.....Chickasha
 Livermore, Walter N....Chickasha
 Penquite, Walter.....Chickasha
 Russell, R. L.....Marlow
 White, J. C.....Chickasha
 Winborn, L. H.....Tuttle

GRANT COUNTY

Antle, H. C.....Renfrow

Martin, John F.....Deer Creek

GREER COUNTY

Austin, C. W.....Granite
 Barr, J. H.....Reed
 Beach, W. W.....Hollis
 Bennett, A. C.....Vinson
 Border, G. F.....Mangum
 Carr, B. F.....Mangum
 Campbell, J. F.....Mangum
 Cherry, G. P.....Mangum
 Dawson, W. D.....Mangum
 DeArmon, M. M.....Mangum
 Dodson, T. J.....Mangum
 Dodson, W. O.....Willow
 Horseley, T. J.....Vinson
 Holt, R. L.....Mangum
 Jeter, O. R.....Brinkmon
 Jones, J. E.....Hollis

Kilpatrick, E. S.....Vinson
 McFadden, J. F.....Hollis
 Merridith, J. S.....Russell
 Miller, G. B.....Mangum
 Moss, B. F.....Willow
 Neel, Ney.....Mangum
 Norton, Porter.....Mangum
 Nunnery, T. J.....Granite
 Pearson, L. E.....Reed
 Pendergraft, W. C.....Hollis
 Pinnell, G.....Mangum
 Poer, E. M.....Jester
 Wiley, Geo. W.....Granite
 Willis, T. L.....Granite
 Wilson, O. W.....Russell

HASKELL COUNTY

Chambers, A. M.....McCurtain
 Culbertson, J.....Whitefield
 Davis, Ben.....Kinta
 Fannin, F. A.....Stigler
 Hill, A. T.....Tamaha
 Johnson, E.....Kinta
 Jones, R. E.....Lequire
 Jones, O. H.....Kanima

Mitchell, S. E.....Stigler
 Ramsey, W. G.....McCurtain
 Runley, J. C.....Tamaha
 Thomas, E.....Stigler
 Terrell, R. F.....Stigler
 Turner, T. B.....Stigler
 Van Matre, M.....Keota

HUGHES COUNTY

Atkins, W. D.....Holdenville
 Bentley, W. B.....Calvin
 Cagle, T. J.....Wetumka
 Hamilton, S. H.....Non
 Howell, H. A.....Holdenville
 Hughey, A. G.....Holdenville
 Lowe, J. W.....Holdenville
 McCary, D. Y.....Calvin

Mellette, U. N.....Holdenville
 Pope, A. J.....Hanna
 Rushing, B. F.....Hanna
 Robertson, Ira W.....Dustin
 Scott, J. D.....Holdenville
 Standridge, C. C.....Citra
 Williams, J. P.....Holdenville

JACKSON COUNTY

Abernathy, E. A.....Altus
 Buck, D. C.....Eldorado
 Crowe, E. S.....Oklustee
 Clarkson, W. H.....Blair
 Davis, B. J.....Humphreys
 Fox, R. H.....Altus
 Garrett, D. L.....Altus
 Landrum, S. H.....Altus
 Lewis, A. R.....Ryan
 Lowery, Thos. A.....Eldorado

May, J. W.....Hedrick
 Rawls, S. P.....Altus
 Rutland, W. H.....Altus
 Sanderson, W. E.....Altus
 Stephens, J. M.....Hastings
 Street, O. J.....Altus
 Strother, S. P.....Altus
 Spears, C. G.....Altus
 Taylor, R. Z.....Blair
 Wilson, D. E.....Elmer

JEFFERSON COUNTY

Ashinhurst, T. E.....Waurika
 Clement, O. E.....Hastings
 Collins, D. B.....Sugden
 Cranfill, A. G.....Grady
 Derr, J. I.....Waurika
 Dixon, R. G.....Sugden
 Ewing, F. W., 109 C St. S. E...
Washington, D. C.

Maupin, C. M.....Waurika
 Moore, J. W.....Addington
 Murphy, G. W.....Addington
 Sins, W. P.....Terrall
 Sutherland, L. B.....Waurika
 Smith, R. R.....Addington
 Wilton, G. C.....Ryan

JOHNSON COUNTY

Clark, Guy.....Milburn
 Cottrell, W. P.....Milburn
 Kniseley, H. B.....Tishomingo
 Looney, J. T.....Tishomingo

Morris, F. C.....Coleman
 Rice, S. O.....Pontotoc
 Stobugh, F. B.....Mannsville

KAY COUNTY

Bishop, H. H.....Tonkawa
 Gearhart, A. P.....Blackwell
 Havens, A. R.....Nardin
 Jones, J. A.....Tonkawa
 Miller, D. W.....Blackwell

Orvis, E. J.....Blackwell
 Risser, A. S.....Blackwell
 Robertson, W. A. T.....Ponca
 Stricklen, H. M.....Tonkawa
 Waggoner, E. E.....Tonkawa

KINGFISHER COUNTY

Barker, H. G.....Hennessey
 Cavett, R. E.....Keil
 Cullom, A. B.....Hennessey
 Fisk, C. W.....Kingfisher

Gose, C. O.....Hennessey
 Overstreet, J. A.....Kingfisher
 Rector, N.....Hennessey
 Share, A. L.....Kingfisher

KIOWA COUNTY

Bonham, J. M.....Hobart
 Dale, J. R.....Hobart
 Gray, M.....Mountain View
 Hathaway, A. H...Mountain View
 Huffman, L. H.....Hobart

Lloyd, H. C.....Hobart
 Muller, J. A.....Snyder
 Ritter, J. M.....Roosevelt
 Stewart, G. W.....Hobart
 Wagoner, A. L.....Hobart

LATIMER COUNTY

Dalby, H. L.....Wilburton
 Evins, E. L.....Wilburton
 Henry, T. L.....Wilburton
 Kilpatrick, Garnett A...Wilburton
 Kilpatrick, Geo. A.....Wilburton

McArthur, J. F.....Wilburton
 Munn, J. A.....Wilburton
 Rich, R. C.....Red Oak
 Talley, I. C.....Red Oak

LEFLORE COUNTY

Beckett, J. B.....	Spiro	Minor, R. W.....	Williams
Bolger, J. M.....	Poteau	Minor, S. W.....	Monroe
Brown, W. W.....	Cameron	Morrison, Geo. A.....	Poteau
Burrow, O. S.....	Howe	Morrison, R. L.....	Poteau
Dean, S. C.....	Howe	Moore, M. O.....	Braden
Harbour, J. T.....	Cameron	Plumlee, M.	Poteau
Hardy, H.....	Bokoshe	Shippey, E. E.....	Wister
Hardy, J. J.....	Poteau	Wear, J. B.....	Poteau
Hartshorne, W. O.....	Spiro	Woodson, B. D.....	Poteau

LINCOLN COUNTY

Adams, J. W.....	Chandler	Morgan, C. M.....	Chandler
Bilby, J. F.....	Stroud	Pendergraft, W. A.....	Carney
Davis, W. H.....	Chandler	Williams, H. M.....	Wellston
Hurlburt, E. F.....	Chandler	Williams, J. C.....	Stroud
Marshall, A. M.....	Chandler	Wyman, F. W.....	Sac & Fox Agency

LOGAN COUNTY

Barker, E. O.....	Guthrie	Petty, C. S.....	Guthrie
Childers, A. G. T.....	Mulhall	Phillips, Lewis.....	Seward
Compton, C. M.....	Coyle	Quillin, Pauline.....	Guthrie
Cotteral, C. F.....	Guthrie	Richmond, H. C. T.....	Marshall
Cronk, Fred Y.....	Guthrie	Rhinehart, J. H.....	Meridian
Duke, John W.....	Guthrie	Rucks, W. W.....	Guthrie
Hahn, L. A.....	Guthrie	Scott, Hugh.....	Guthrie
Hamill, J. R.....	Guthrie	Scott, Frank.....	Crescent
Hill, C. B.....	Guthrie	Smith, R. V.....	Guthrie
Houseworth, J. L.....	Guthrie	Stevens, David.....	Guthrie
Melvin, J. L.....	Guthrie	Underwood, E. L.....	Crescent
Newton, L. A.....	Guthrie	Wachtel, J. B.....	Navina
Overton, L. M.....	Clarita	West, A. A.....	Guthrie

LOVE COUNTY

Autry, D.	Marietta	Gardner, R. A.....	Marietta
Batson, W. V.....	Marietta	Jackson, T. J.....	Marsden
Beeler, C. A.....	Burneyville	Looney, M. D.....	Burneyville
Crawley, J. J.....	Overbrook	Martin, A. E.....	Marietta
Freidson, S. A.....	Leon	Mathews, W. F.....	Bomar
Gardner, B. S.....	Marietta		

MAJOR COUNTY

Gleason, W. L.....	Fairview	Specht, Elsie.....	Fairview
Johnson, B. F.....	Fairview	Taylor, W. J.....	Fairview

MARSHALL COUNTY

Belt, M. D.....	Woodville	Haynie, John A.....	Aylesworth
Blaylock, T. A.....	Madill	Haynie, W. D.....	Powell
Collins, J. A.....	Linn	Holland, J. L.....	Madill
Davis, W. L.....	Kingston	Lewis, E. F.....	Kingston
Gaston, J. L.....	Madill	Winston, S. P.....	McMillan

MAYES COUNTY

Adams, J. L.....	Chapel	Puckett, Carl.....	Pryor
Hillis, J. E.....	Pryor	Tilly, G. W.....	Pryor
Hollingsworth, J. E.....	Spavinaw	White, L. C.....	Adair
King, F. S.....	Pryor		

McCLAIN COUNTY

Childs, J. S.....	Purcell	McCurdy, T. C.....	Purcell
Colby, J. H.....	Purcell	McCurdy, W. C.....	Purcell
Cox, C. P.....	Payne	Nelson, J. A.....	Wayne
Kolb, I. N.....	Dibble	Tralle, G. M.....	Purcell

McCURTAIN COUNTY

Clarkson, A. W.....	Valliant	Moreland, W. A.....	Idabel
Denison, J. S.....	Garvin	Moreland, Frank.....	Idabel
Graydon, A. S.....	Idabel	Moreland, J. T.....	Idabel
Howard, W. E.....	Valliant	Moore, W. E.....	Broken Bow
Hoyle, C. L.....	Goodwater	Oliver, R. B.....	Bokhoma
Mabry, W. L.....	Valliant	Richardson, P. M.....	Millerton
Martin, J. A.....	Valliant	Spencer, D. O.....	Valliant
McCaskill, W. B.....	Idabel	Todd, G. O.....	Bismark

McINTOSH COUNTY

Barton, A. H.....	Yanush	Rice, J. F.....	Eufaula
Bennett, Dyton.....	Texanna	Shaunty, J. N.....	Eufaula
Graves, G. W.....	Hichita	Snelson, A. J.....	Checotah
Lee, N. P.....	Checotah	Tolleson, W. A.....	Eufaula
Little, D. E.....	Eufaula	Vance, B. J.....	Checotah
McCulloch, James H....	Checotah	Watkins, J. C.....	Checotah
Nowlon, N. R., 702 Campbell Bldg.	Oklahoma City	West, G. W.....	Eufaula

MURRAY COUNTY

Adams, J. A.....	Sulphur	Powell, W. H.....	Palmer
Dunn, R.	Davis	Slover, J. T.....	Sulphur
Ponder, A. V.....	Sulphur	Slover, George.....	Sulphur

MUSKOGEE COUNTY

Aiken, S. W.....	Muskogee	Hill, C. L.....	Haske'll
Ballantine, H. T.....	Muskogee	Hollingsworth, J. I.....	Muskogee
Berry, W. D.....	Muskogee	Hoss, Sessler.....	Muskogee
Blakemore, J. L.....	Muskogee	Howell, O. E.....	Oktaha
Brown, Benj. H.....	Muskogee	Jennings, G. A.....	Muskogee
Brown, J. Maurice.....	Muskogee	Jennings, Harriet B., care of Wheelock Academy....	Millerton
Burke, D. H.....	Warner	Joblin, W. R.....	Porter
Callahan, J. O.....	Muskogee	Keith, Emma.....	Muskogee
Carlson, T. C.....	Hoffman	Klass, O. C.....	Muskogee
DeGroot, C. E.....	Muskogee	Lee, Jno. E.....	Haskell
Dial, J. J.....	Muskogee	Lightfoot, J. B.....	Muskogee
Donnell, R. N.....	Muskogee	Lovell, A. J.....	Council Hill
Dwight, K. M.....	Muskogee	Mitchell, P. S.....	Muskogee
Everly, A. W.....	Muskogee	Mitchell, W. C.....	Haskell
Ferguson, J. B.....	Muskogee	Montgomery, A. B.....	Muskogee
Fite, F. B.....	Muskogee	Nagle, W. M.....	Muskogee
Floyd, W. E.....	Muskogee	Nesbitt, P. P.....	Muskogee
Foster, M. H.....	Oktaha	Newton, W. B.....	Muskogee
Fryer, S. J.....	Muskogee	Nichols, J. T.....	Muskogee
Fuller, J. S.....	Ft. Gibson	Noble, J. G.....	Muskogee
Fullenwider, C. M.....	Muskogee	Norvell, B. P.....	Muskogee
Harris, A. W.....	Muskogee	Oldham, I. B.....	Muskogee
Heitzman, C. W.....	Muskogee		

Rice, C. V.....Muskogee
 Rogers, C. T.....Muskogee
 Rogers, H. C.....Muskogee
 Roland, M. M.....Muskogee
 Sanderson, C. E.....Council Hill
 Sanford, J. Hoy.....Muskogee
 Sapper, E. J.....Warner
 Scott, H. A.....Muskogee
 Shankle, H. D.....Muskogee
 Smith, A. D.....Wainwright
 Smith, R. R.....Muskogee
 Smithette, G. A.....Muskogee

Stocks, A. L.....Muskogee
 Thompson, C. A.....Muskogee
 Thompson, M. K.....Muskogee
 Tilly, W. T.....Muskogee
 Vann, W. H.....Porum
 Vittum, J. S.....Muskogee
 Walton, F. L.....Muskogee
 Warnack, J. C.....Muskogee
 Warterfield, F. E.....Muskogee
 White, J. H.....Muskogee
 Wilkiemeyer, F. J.....Muskogee
 Woodcock, J. H.....Muskogee

NOBLE COUNTY

Barber, J. J.....Billings
 Brafford, S. F.....Billings
 Coldiron, D. F.....Red Rock
 Keeler, F. L.....Perry

Kuntz, L.Perry
 Owen, B. A.....Perry
 Renfrow, T. F.....Billings
 Watson, Bruce.....Perry

NOWATA COUNTY

Brookshire, J. E.....Nowata
 Collins, J. R.....Nowata
 Crawford, H. G.....Nowata
 Freer, B. W.....Nowata
 Haggard, J. B...South Coffeyville
 Howell, D. D.....Nowata

Narin, Wm.....Nowata
 Russell, E. M.....Nowata
 Strother, L. T.....Nowata
 Sudderth, J. P.....Nowata
 Thomas, J. G.....Nowata
 Wilkerson, J. T.....Lenapah

OKFUSKEE COUNTY

Bombarger, C. C.....Paden
 Griffith, W. C.....Weleetka

May, H. A.....Okemah
 Sims, J. L.....Weleetka

OKLAHOMA COUNTY

Alford, J. M., Colcord Bldg....
Oklahoma City
 Andrews, Leila E., Concold Bldg.
Oklahoma City
 Bailey, F. M., American Bank
 Bldg.Oklahoma City
 Barker, C. E., Baum Bldg.....
Oklahoma City
 Bevan, W. R., State Natl. Bank
Oklahoma City
 Blesh, A. L., State National Bank
Oklahoma City
 Bolend, Rex G., Security Bldg.
Oklahoma City
 Bradford, C. B., Lee Bldg.....
Oklahoma City
 Buchanan, T. A., Lee Bldg.....
Oklahoma City
 Buxton, L. H., Indiana Bldg....
Oklahoma City
 Clement, W. R., 6th and Bdy.
Oklahoma City
 Cloudman, H. H., Insurance Bldg.
Oklahoma City

Cunningham, S. R., Majestic Bldg.
Oklahoma City
 Clymer, C. E., Lee Bldg.....
Oklahoma City
 Cummings, W. C.....Okmulgee
 Day, C. R., Security Bldg.....
Oklahoma City
 Davenport, A. E., Insurance Bldg.
Oklahoma City
 Davis, E. F., Colcord Bldg.....
Oklahoma City
 Dicken, W. E., State Natl. Bldg.
Oklahoma City
 Dixon, W. E., State Natl. Bank
Oklahoma City
 Ducote, J. R.....Oklahoma City
 Edwards, R. T., State Natl. Bldg.
Oklahoma City
 Ferguson, C. D., State Natl. Bank
Oklahoma City
 Ferguson, E. S., State Natl. Bank
Oklahoma City
 Fishman, C. J., Colcord Bldg....
Oklahoma City

Flesher, T. H.....	Edmond	McHenry, D. D., Coleord Bldg...	
Foster, R. L., American Nat. Bank		.....	Oklahoma City
.....	Oklahoma City	McLean, Geo. D., State Nat. Bank	
Fullington, W. A., Security Bldg.		.....	Oklahoma City
.....	Oklahoma City	McNair, O. P., Amer. Nat. Bank	
Fowler, W. A., Lee Bldg.....		.....	Oklahoma City
.....	Oklahoma City	Moerman, L. J., State Nat. Bank	
Gay, Ruth A., Patterson Bldg.		.....	Oklahoma City
.....	Oklahoma City	Morgans, S L., 122½ N. Bdw.	
Gotchy, E. D., State Natl. Bank..		.....	Oklahoma City
.....	Oklahoma City	Neeley, J. M., Security Bldg....	
Haas, Karl.....	Harrah	.....	Oklahoma City
Hall, J. F., 227½ W. Main.....		Nowlin, N. R., Campbell Bldg...	
.....	Oklahoma City	.....	Oklahoma City
Hartford, J. S., Security Bldg...		Phelan, J. R., Patterson Bldg...	
.....	Oklahoma City	.....	Oklahoma City
Holliday, J. R., Coleord Bldg....		Reed, Horace, State Natl. Bank	
.....	Oklahoma City	.....	Oklahoma City
Howard, R. M., Security Bldg...		Riely, Lea A., Amer. Natl. Bank	
.....	Oklahoma City	.....	Oklahoma City
Hull, R. L., American Natl. Bank		Riley, J W., 119 W. 5th St.....	
.....	Oklahoma City		
Johannes, A. D., Security Bldg.		Robinson, O. T.....	Britton
.....	Oklahoma City	Rolater, J. B., Coleord Bldg....	
Jolly, W. J., Lee Bldg.....		.....	Oklahoma City
.....	Oklahoma City	Sackett, L. M., Amer. Nat. Bank	
Joyce, Chas. W.....	Wheatland	.....	Oklahoma City
Kelly, J. F., 129½ W. Main St.		Sanger, F. M., Security Bldg...	
.....	Oklahoma City	.....	Oklahoma City
Kendall, W. L.....	Enid	Sanger, Winnie M., Security Bldg.	
Kuhn, J. F., State Nat. Bank....		.....	Oklahoma City
.....	Oklahoma City	Smith, M., Coleord Bldg.....	
Lain, E. S., State Nat. Bank....		.....	Oklahoma City
.....	Oklahoma City	Sorgatz, F. B., Insurance Bldg...	
Langsford, Wm., Main & Bdy...		.....	Oklahoma City
.....	Oklahoma City	Stone, S. N.....	Edmond
LaMotte, G. A., Coleord Bldg...		.....	Oklahoma City
.....	Oklahoma City	Stout, M. E., Amer. Natl. Bank	
Lawson, N. E., Patterson Bldg...		.....	Oklahoma City
.....	Oklahoma City	Taylor, W. M., State Natl. Bank	
Lee, C. E., State Nat. Bank....		.....	Oklahoma City
.....	Oklahoma City	Thomas, W. C., Security Bldg...	
Long, R. D., Coleord Bldg.....		.....	Oklahoma City
.....	Oklahoma City	Todd, H. C., Indiana Bldg.....	
Looney, R. E., Amer. Nat. Bank		.....	Oklahoma City
.....	Oklahoma City	Von Wedel, Curt, Campbell Bldg.	
Martin, J. T., 318 W 4th St.....		.....	Oklahoma City
.....	Oklahoma City	Wall, G. A., Coleord Bldg.....	
Maxwell, J. H., 227½ W. Main..		.....	Oklahoma City
.....	Oklahoma City	Wallace, W. J., Amer. Natl. Bank	
Messenbaugh, J. F., Coleord Bldg.		.....	Oklahoma City
.....	Oklahoma City	Watson, L. F., Coleord Bldg.....	
McCabe, R. S., Coleord Bldg.....		.....	Oklahoma City
.....	Oklahoma City	Weir, W. M., Coleord Bldg.....	
		.....	Oklahoma City

Norris, T. T.....Crowder
 Pemberton, R. K.....Krebs
 Rice, O. W.....Alderson
 Sames, W. W.....Hartshorne
 Street, Graham.....McAlester
 Smith, J. A.....McAlester

Troy, E. H.....McAlester
 Turner, G. S.....Kregs
 Watson, F. L.....Alderson
 Wilson, Me. C.....McAlester
 Williams, H. M.....McAlester
 Willour, L. S.....McAlester

PONTOTOC COUNTY

Austell, A. G.....Center
 Berninger, W. B.....Allen
 Blackburn, J. H.....Frisco
 Breco, J. G.....Stonewall
 Castleberry, R. T.....Ada
 Craig, J. R.....Ada
 Cummings, I. L.....Ada
 Faust, W. D.....Ada
 Harrison, Fred.....Stonewall
 Hartman, T. W.....Ada
 Hill, T. A.....Fitzhugh
 Jeffress, John L.....Roff

LaRue, C. L.....Francis
 Mills, J. F.....Sasakwa
 Orr, C. L.....Roff
 Richey, S. M.....Francis
 Rose, F. C.....Allen
 Ross, S. P.....Ada
 Threlkeld, W. B.....Francis
 Vaden, J. M.....Ada
 Wallace, V. M.....Steedman
 White, J. E. F.....Center
 Wilkirson, C. S.....Roff

POTTAWATOMIE COUNTY

Anderson, R. M.....Shawnee
 Baker, M. A.....Shawnee
 Ball, M. A.....Wanette
 Baxter, G. S.....Shawnee
 Blickensderfer, Chas.....Shawnee
 Bradford, W. C.....Shawnee
 Butler, W. R.....Maud
 Bloss, C. M., R. F. D....Tecumseh
 Byrum, J. M.....Shawnee
 Calhoun, Z. T.....Tribbey
 Campbell, H. G.....Asher
 Carson, F. L.....Shawnee
 Colvert, Geo. W.....Tecumseh
 Cone, H. L.....Maud
 Cullom, J. E.....Earlsboro
 Ellis, J. B.....Shawnee
 Farris, W. W.....McComb
 Farrington, C.....Shawnee
 Gallaher, W. M.....Shawnee
 Gray, E. J.....Tecumseh
 Goodrich, E. E.....Shawnee

Henderson, W.....Shawnee
 Hughes, J. H.....Shawnee
 Kaylor, P. S.....McLoud
 Mahr, J. C.....Shawnee
 Marshall, J. W.....Shawnee
 McGee, W. N.....Shawnee
 Nye, W. L.....Okemah
 Reeder, H. M.....Asher
 Rice, E. E.....Shawnee
 Rogers, J. O.....McComb
 Rowland, T. D.....Shawnee
 Sanborn, G. H.....Shawnee
 Sanders, T. C.....Shawnee
 Scott, J. H.....Shawnee
 Stooksbury, J. M.....Shawnee
 Taylor, J. C.....Chelsea
 Wagner, H. A.....Shawnee
 Walker, J. A.....Earlsboro
 Walker, J. A.....Shawnee
 Warhurst, M. A.....Sylvian
 Wilson, H. H.....Shawnee

PUSHMATAHA COUNTY

Ginn, Edward.....Antlers
 Johnson, H. C.....Antlers

Huckabay, M. B.....Tuskahoma

ROGERS COUNTY

Anderson, F. A.....Claremore
 Bass, E. Y.....Talala
 Bassman, Caroline.....Claremore
 Beson, C. W.....Claremore
 Bryan, W. G...Albuquerque, N. M.
 Busheyhead, J. C.....Claremore
 Dickson, T. B.....Ochelata
 Hays, W. F.....Claremore
 Haley, J. H.....Catale
 Hensal, T. W.....Foyil

Hille, H. L.....Collinsville
 Howard, W. A.....Chelsea
 Lerskov, A. N.....Claremore
 Means, J. F.....Claremore
 Pleas, E.....Collinsville
 Smith, J. C.....Catoosa
 Strickland, G. W.....Claremore
 Smith, J. F.....Neodesha
 Waldrop, J. G.....Claremore

SEMINOLE COUNTY

Brice, M. O.....	Schoolton	Keyes, R.	Castle
Black, W. R.....	Little	McAlister, E. R.....	Seminole
Harber, J. N.....	Seminole	Phillips, W. D.....	Hazel
Harrison, T. F.....	Wewoka	Turlington, M. M.....	Seminole

SEQUOYAH COUNTY

Carnell, M. D.....	Sallisaw	Jones, S. B.....	Sallisaw
Cheek, J. A.	Hanson	McDowell, M. T.....	Sallisaw
Hunter, W. M.....	Vian	McKeel, Sam A.....	Sallisaw
Johnson, S. P.....	Rowland	Sosbee, J. W.....	Gore
Youart, J. D.....	Sallisaw		

STEPHENS COUNTY

Appling, J. S. A.....	Doyle	Howell, W. T.....	Duncan
Bartley, J. P.....	Comanche	Long, D.....	Duncan
Barnes, T. C.....	Marlow	Montgomery, R. L.....	Marlow
Button, M. A.....	Marlow	Montgomery, D. M.....	Marlow
Conger, H. A.....	Duncan	Nickson, John W.....	Loco
Frie, H. C.....	Duncan	Plunkett, B. J.....	Duncan
Frost, C. E.....	Duncan	Spears, W. S.....	Duncan
Harbison, J. E., care of Home		Thomason, E. B.....	Velma
Life Ins. Co.....	Oklahoma City	Wharton, J. O.....	Duncan
Haraway, P. M.....	Marlow	Williamson, S. H.....	Duncan

TEXAS COUNTY

Hayes, R. B.	Guymon	McMillan, James.....	Goodwell
Langston, Wm. H.	Guymon	Risen, Wm. J.....	Hooker

TILLMAN COUNTY

Bacon, O. G.....	Davidson	Hansen, J. H.....	Grandfield
Briggs, I. A.....	Hollister	Hays, A. J.	Frederick
Brinks, W. J.....	Manitou	Howell, C. A.....	Loveland
Collier, J. W.....	Tipton	Mitchell, L. A.....	Frederick
Comp, G. A.....	Manitou	Osborn, J. D. Jr.....	Frederick
Fair, A. B.....	Frederick	Rosenberger, F. E.....	Grandfield
Fuqua, W. A.....	Loveland	Wilson, R. E.....	Davidson

TULSA COUNTY

Anderson, L. C.....	Tulsa	Ferguson, L. J.....	Tulsa
Ballance, C. A.....	Collinsville	Ferguson, Moses J.....	Tulsa
Butler, G. H.....	Tulsa	Felt, Roland A.....	Tulsa
Black, William C.....	Tulsa	Franklin, Onis.....	Broken Arrow
Bland, J. C.....	Tulsa	Gilbert, James B.....	Tulsa
Brodie, W. W.....	Tulsa	Grossheart, Ross	Tulsa
Brown, P. R.....	Tulsa	Hawley, S. De Zell, Bliss Bldg...	
Calhoun, C. E.....	Sand Springs	Tulsa
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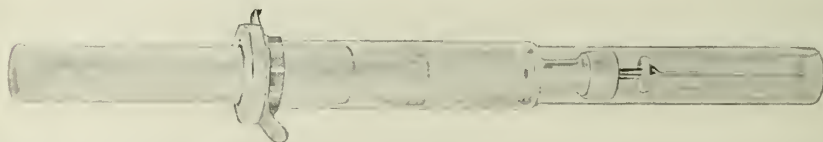
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LIGHTS AND SHADOWS IN THE PRACTICE.

Exigencies, emergencies, crucial moments, hairbreadth escapes and serious up-against-ities crowd one upon the other in more or less urgent succession in the experience of every physician.

But there are oases, silver linings, paths bordered with daisies, the gentle zephyr of hope and the smile on the lips of the sufferer for the most of us. There is no shadow without its source of light. There is no sound without its alternating silence. Cold means merely the passing of heat, and sorrow is but diminished joy.

Yet, not only does the cold shadow of disease intrude itself upon the individual sufferer, but sorrow, poverty, hereditary and contagious transmission of disease thrust themselves as by-products into the daily life of the doctor.

Incidentally you will allow me to observe that when I use the term "doctor," I mean a competent, conscientious, painstaking member of the regular medical profession who has studied the human body and its pathology that he may know disease and if possible its remedy.

I refer not to the man who has a cure for every complaint. I mean the man who is not ashamed to say he doesn't know when really he does

not. He is the man who tries to know all that is known by his profession, and who does not pretend to know more than is surely known. He desires the confidence of his patient for the long run as well as for the present.

If, after he has studied her case, a patient asks him what her trouble is and he is unable to tell her, he will say frankly: "I do not know." Thus at least she will be convinced that he knows what he is talking about, whereas the man who knows it all and who tells her she is "bilious and suffering from indigestion; is full of malaria and has 'kidney trouble' and female disease, complicated by neuralgia and change of life," may be wrong.

To have the professional care of the sick is a serious business. More than one competent man, after some wholly unpreventable accident, has suddenly given it up because of the intolerable responsibility.

I once had a physician, a very careful man, give an anesthetic to a patient whom we both regarded as a bad subject for anesthesia. We selected chloroform. The operation was a trivial one but it was imperative. I watched closely the pulse and the breathing, but just as the patient dropped into unconsciousness her pupils suddenly dilated, the face blanched, the eyeballs sank, the pulse hesitated—all within a few seconds. We removed the mask, lowered the head, and in about a year the pulse returned and the color reappeared in the face. We were holding the life of a human being suspended in chloroform vapor over a bottomless chasm. And was all this fearful responsibility assumed for the paltry fee we were to get? No! A dislocation had to be reduced and we were asked to do it.

Very few physicians acquire wealth by way of their profession alone. There is no easy, honest road to wealth, and certainly no easy dishonest one, for the way of the transgressor is hard.

The doctor takes into account the women and children of the poor; and their name is legion; he counts the family of his colleague and of his pastor. From none of these does he expect compensation, in money, nor will he under any circumstances accept any.

But these are not necessarily "shadows" in the life of the doctor. Just as a few glinting touches of high light from the brush of an artist will balance great masses of shadow in a picture, a beautiful picture, so the choice bits of genuine pleasure in the life of the short sleep, underpaid and shabbily dressed doctor will amply compensate him for the worry he has borne. Gratitude is the highest light of reward in the life of service, no matter what the material consideration.

But in the doctor's experience may often be found exquisite bits of humor. The most convulsive type of humor may be born of tragedy.

One lovely summer afternoon I had a message to come to see a year old baby. The family lived in a cabin on an East Tennessee hillside, with a bubbling spring at its foot. I am tempted to tell you more about that

spring and the brook that drained it and the foot-log and the big willow and the tubs and the clothes line and the blue peaks in the distance. But I started to tell you about the sick baby and its mother. The father was a moonshiner and—ah, that reminds me! I see the rhododendron, I smell the balsam and I hear the gurgling gorges of Chilhowie, of Round Top and Old Smokie. A bird's-eye view of that region in the morning twilight before the mists of the valley have overflowed the mountain side would discover the curling smoke of a thousand sylvan laboratories, rock hewn and guarded by ten thousand outlawed rifles. The superstition of centuries can be seen ascending in beautiful undulations from the alembics of those sturdy alchemists. From the vulgar corn of the valley they are evolving that diaphenous film of ethereal nectar that cures every ill that flesh inherits.

From the round eyed babe to the tottering grandpa this sacred eye-water is indispensable. It is good for colds and for hots; for the sick and the near-sick; for the outside and the inside, top side, bottom side, right side, left side, hind side, fore side, blind side and side ways.

But I must get back to my baby. On this particular afternoon it was performing that time-honored and all important stunt called teething. I was met by the mother, who, by the way, chewed tobacco, was barefoot and used unspeakable English.

The baby was a heap of skin, bones, gas and soiled rags. All this I observed after "shooing" the flies away. I removed the peach leaf poultice from the child's abdomen and threw it over into last winter's ashes.

"Aint you goin' to put no poultus on it, Doc?"

"No."

I was standing between my interlocutor and the fireplace. She shut one eye, took quick aim and I dodged, but too late. She squirted at least an ounce of hand-twist tobacco juice within a steenth of an inch of my person, but never touched me.

"Aint you goin' to rub no quinine and lard into it?"

"No." I side-stepped from the tobacco juice again.

"Don't you think some blackberry corjal 'd be good fer it?"

"No."

"Doc, aint yer goin' ter give it no medison a-tall?"

"Not now."

"Well, Doc, whut yer goin' to do fer it? Do yer think it will git well?"

"Not till it has had a bath."

"A whut?"

"You must bathe the child—wash it."

"Why Doc, I waushed it this mawnin, but though I haint stripped it yit."

I described a sure enough bath, including the scalp.

"Why Doc, that young'un can't stand no sich doins as that. I haint had a drap o' water on its head sence it war barned."

As I left she put fifteen cents in my hand with: "Doc, as you come out to-morrer I wushed you would not fergit ter bring me a dime's wuth o' chawin' terbacker and a nickel's wuth o' sody. And say, Doc, if yer fergit any one, fergit the sody."

The family doctor sometimes gets pay for his services, but his life is made up in the main of alternating comedy and tragedy.

I had done the practice of the Wilkins family for three or four years, receiving nothing in return further than the satisfaction that I had helped the worthy poor. Wilkins was ignorant and shiftless though not really lazy; just harmless, even-tempered and honest.

He was helper to the blacksmith and that artist very deftly chiseled him out of his just share of the earnings. This was because Wilkins was wholly devoid of the spirit of resentment, could neither read nor write, and the blacksmith kept the accounts.

Wilkins' wife was a small, thin, sharp-faced, blue-eyed energetic woman, not as illiterate as her husband, and naturally much brighter. Of their seven children, the oldest of which was fifteen, there was a pair of twins, boys. These twin boys, Grady and Brady, came of a long line of ne'er do wells of unsanitary habits, strangers to the full bath and unacquainted with pure air.

The family subsisted by the hand-to-mouth method, sometimes unable to get the hand to the mouth for any definite purpose. The mother picked berries in the summer and cotton in the fall. The coarsest of food and the scantiest of clothing was the lot of those children. Despite the pressing household cares the mother found time to do washings, house cleaning and sewing for her better-to-do neighbors. The twins were bottle fed and colicky, and the overworked mother often lost the sleep of an entire night worrying with the wretched little pensioners. She never called me at night if she could possibly avoid it, though her heart was wrung with anxiety for her babies during the long hours before daylight came.

She was very appreciative of my services, of which fact I had no doubt because of her willingness to help my wife with any work she could do for her from time to time. Answering a hurried call one day, I found this poor woman quite blind and suffering intense agony from a severe burn with boiling water. The accident had occurred in the kitchen. One eye was totally destroyed, while recovery of vision for the other I thought extremely doubtful. The burn on the blind side left a massive sear with frightful ectropion. After the berry season they moved away and I lost all trace of them.

This was in the famous rich black land of north Texas, and in this region it is not unusual that the doctors for six months in the year make their country calls on horseback. During the winter I have in mind the condition of the roads was always referred to as either slop, freeze or

thaw. There was constant rain, sleet or snow. The deep black mud, alternating with icy blizzards, was a continuous nightmare to all the doctors. Calls were easy—they came by telephone—but the response was made in person. And these were hard, tedious, lonely rides, out in the sooty blackness with a blizzard blowing sixty miles an hour while everything shakable was vibrant in its whizzing current. The wind hisses and howls; booms and roars; moans, whines, and sighs; then rises again with a prairie cabin in its teeth and shakes it as a terrier shakes a rat. Over a sky-line, straight as a string, the rollicking blizzard claims unchallenged right-of-way and the shack of the poor tenant for its plaything.

One night I had just returned from an eight-mile ride through fast freezing mud and slush. In bed I was dreaming of the "spelling match" at the close of the summer term when I was a schoolboy in the country. The girl I liked best had been chosen champion for her side and I for mine, and I was hesitating in my dream between allowing her to turn me down on an easy word and of gratifying my own ambition to be the champion of the district. But the yellow hair with its pink ribbon, the blue eyes above the peach bloom, the pink dress and white slippers and stockings overcame all ambition to hold the championship and I surrendered on "excelsior," the word expressing my feelings at that moment. The contest closed with one deafening peal of thunder and the roar of an approaching cyclone and I awoke—it was my telephone.

A man whom I knew and who lived seven miles in the country was asking me to come to see a sick baby in the family of a tenant on his place. Now this was in the territory of another physician and I naturally inquired why that doctor could not attend the call. I noted the time, 2 a. m. I told him I would not go unless he would stand for my fee. Reluctantly he agreed to do this. With equal reluctance I went.

Arrived at the shanty, I found the usual group of curious and sympathetic neighbors. There was one chimneyless lamp on a rickety goods box. A bachelor stove served for heating the room as well as for cooking the food. The attendants appeared as mere shadows in the dim light. I recognized none of them, for the center of the lighted area was occupied by the sick baby. Its eyeballs were sunken and the lids half open, disclosing that ground-glass effect of the eye so ominous in any illness. The skin on the cadaver-like form was dry like parchment. The face was shriveled and old looking and the abdomen hollowed out like a boat, the bony framework horribly distinct, the feet and hands but-claws. After an occasional feeble grimace from pain the wrinkled skin on the little sufferer's face had not enough elasticity to become smooth again. I watched the irregular, jerky movement of the lower jaw and the skinny little throat in the dying baby's efforts to breathe, and felt utterly helpless.

As I stood thus plunged in mental soliloquy, contemplating the ruthless cruelty of the great white plague—how it slays sometimes slowly,

often quickly, always surely; that the poor, the helpless, the ignorant and the children are the ones specially marked for slaughter—I was suddenly roused by a voice from the darkness of the room: “Doc, do you think you can save my baby?”

It was a very hoarse voice, scarcely above a whisper, yet penetrating completely the howl of the storm outside because it was a mother’s expression of a lost hope for her baby. The pungent question came at the supreme moment of a doctor’s despair in the presence of death. Without answering I turned to search for the source of the inquiry. There was something familiar in her manner of speech. In the light of the smoking lamp I discovered a figure sitting in a chair covered with an old tattered quilt. She was as gaunt and cadaverous as her baby. Her hair was like the dead silk on the corn. Her face was a grinning skull. The bony arms and claw-like hands were those of a skeleton. The horrible cough made its own diagnosis. Not until I had stooped to look in her face did I recognize in the empty eye socket and hideously drawn scar of the cheek the poor woman who had picked berries as a means of supporting her children.

I said: “Why, you have been sick, haven’t you?”

“Yes, Doctor, didn’t you hear I had consumption?”

Three weeks after the two funerals the bereaved husband came to town wearing a celluloid collar with a red tie, a seersucker suit and tan shoes and mustache dyed a milo maize brown.

INTESTINAL OBSTRUCTION.

W. E. Dicken, M. D., Oklahoma City, Oklahoma.

Formerly there was a great variety of opinion in regard to the treatment of intestinal obstruction.

The men of the older generation relied entirely on the rest, opium and starvation treatment, and held that operative measures were seldom, if ever necessary. We today, however, regard the rest, opium and starvation treatment a waste of valuable time. If our diagnosis of acute obstruction is correct the only rational and sensible procedure (which is agreed) is to open the abdomen and if possible find the cause and remove it.

The practitioner without much experience, upon looking over the text books for guidance, might imagine from the very exact description given of the symptoms peculiar to each form of intestinal obstruction, that the differential diagnosis is a simple matter and that should he meet with such a case he would have to employ a certain method of treatment for a certain form of obstruction.

In actual practice, however, the diagnosis of the special form of obstruction is by no means easy and with the majority of cases the nature of the affection can be determined only by a laparotomy, or on the post mortem table.

The sermons preached daily by some morbid anatomist, are valuable checks to the sin of diagnostic dogmatism, in abdominal affections. You take it in acute affections, however. There are general principles to be followed in each case, for instance, purgatives should be withheld or avoided, food should not be given the patient by mouth, as it is always rejected, but the strength should be maintained by nutritious enemata. Delay in these cases is most dangerous. We should not wait for the vomiting to be fecal (for that is evidence of obstruction of some duration), but should open the abdomen at once, for the earlier the operation is performed the greater the chances of success.

It is not the operation per se that brings about a fatal termination, but too late performance and the advance condition of the grave changes in the bowels, together with the absorption of the toxic material.

This is especially apt to be so in those sub-acute cases due to intussusception, local inflammation and hernia, in which the symptoms not being very urgent, operations are delayed until too late.

In operations of this character, we find one or two of several conditions—obstruction, volvulus, invagination, strangulation, and then we may have the so-called pseudo strangulation, or the stoppage of fecal matter from the intestinal paralysis, which so frequently occurs in peritonitis or appendicitis. In some of these cases the patient has all the symptoms of intestinal occlusion and upon operation we failed to find the obstruction. This may probably be due to this condition of pseudo strangulation.

"In consulting Treves Operative Surgery, we find that in his experience, intestinal strangulation by bands were found in two hundred and fifty cases out of one thousand deaths from intestinal obstruction."

It is a common post mortem observation to find bands, cord-belts and veils traversing various portions of the abdominal cavity; unmistakable evidence of pre-existing localized adhesive peritonitis, the result of appendicitis, perinterine inflammation, mesenteric adenitis, cholecystitis and post-operative sequelae.

These peculiar bridges of adhesions may be congenital abnormalities, or equally dangerous and identical mechanical conditions, may be due to slender viscera, abnormally attached, or the diverticulum of Meckel.

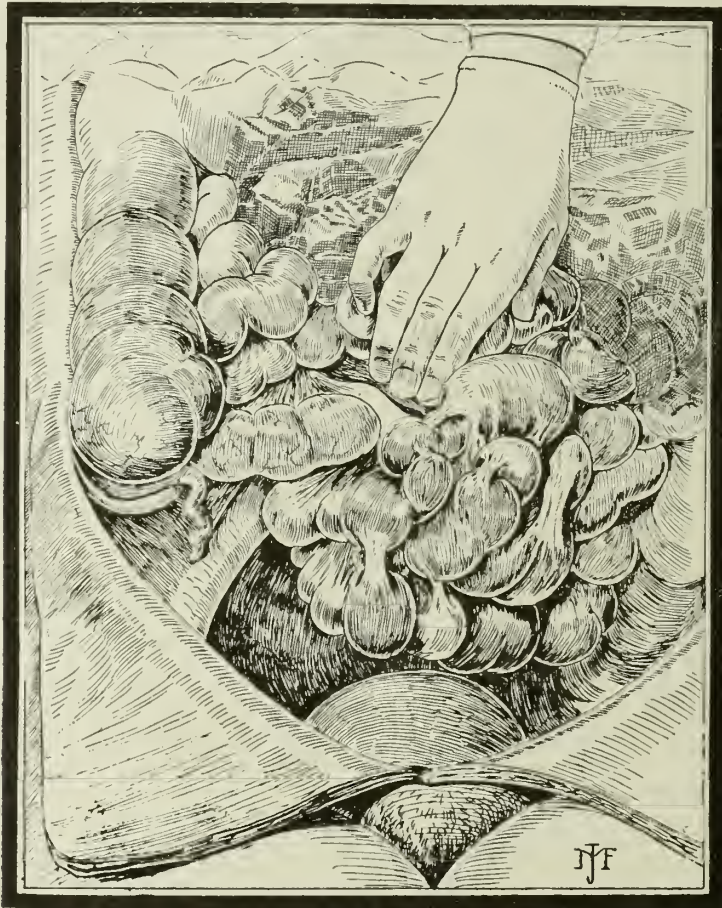
These abnormal attachments may ensnare and strangle the intestine in many ways. As some one has said, it is curious to observe the extraordinary ingenuity exercised by the bowels in finding various ways to develop an obstruction.

Seventy per cent of strangulation by bands occur in the male and nearly all those due to Vitellum remain as Meckel's diverticulum are met with in men.

Taking all cases of band obstruction, we find ninety per cent of them involving the small intestine, and the right iliac fossa is the site or location of nearly seventy per cent of them.

At this time I wish to report two cases, of post-operative strangulation, which has just recently been under my observation.

Mrs. L., aet. 47, was referred to me for operation after having been suffering from obstruction of the bowels for six days, with considerable cramping, and the last twenty-four hours before operation she had stercoraceous vomiting and was very tympanitic. She was operated upon in

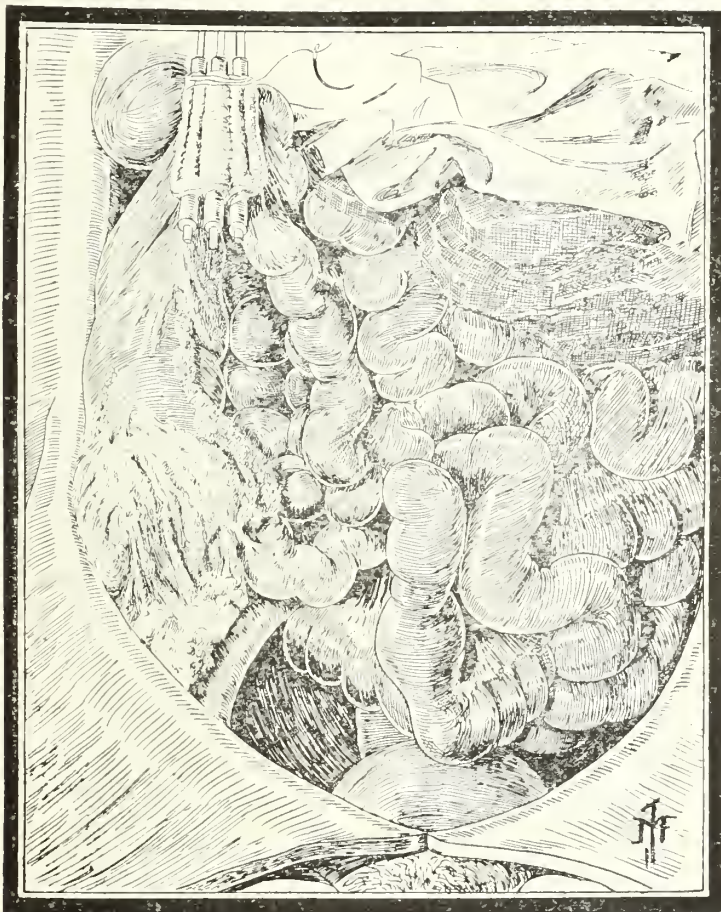


the year of 1910, while living in Kansas, and had her appendix removed, together with a hysterectomy. She stated that she had not been well since the operation, having been considerably constipated all the while with pain in her abdomen.

Upon opening the abdomen, we found together with a number of small adhesions a fibrous band, extending across ilium, about four inches from the ileocecal junction, which completely occluded the bowel, holding it so tightly that it left a deep indenture upon the muscular coat, and looking as though it would not have taken much more pressure to

have caused a section of the bowel. This band was cut at each end and the raw stump covered over with peritoneum and she made an uneventful recovery.

Case No. 2, Mr. D., aet 52, was seen at his home in Britton in consultation, late one evening, and found him suffering great pain in bow-



els, griping in character, and by the next morning stercoraceous vomiting had set in. He had been suffering with this obstruction for four days.

Four years ago he was submitted to an operation for appendicitis, for a sloughed appendix, and four weeks afterwards he was operated upon the second time for the purpose of removing the appendix. This left his abdominal wall weak and for nine months he wore an abdominal support.

Upon opening the abdomen there was a strong band of an omental adhesion constricting the small bowel, at about the ilio-jejunal junction, which was incised and bowel freed and the cecum and lower portion of

the ileum being so much imbedded in a mat of adhesions that a lateral anastomosis was made between the ascending portion of the colon and the ileum, a point being taken about six inches from the ileo-cecal junction.

We believe that by this method of treatment we save a recurrence of the trouble and give the former adhesions about the cecum and ileum a chance to be absorbed and nature to rectify her mistake. And if this should occur, which is most likely, the bowel may resume its normal function and my anastomosis may close.

This patient made a speedy recovery and is enjoying better health today than he has since his first operation.

THE AFTER TREATMENT OF INFANTILE PARALYSIS.

By W. G. Brymer, M. D., Dewar, Oklahoma.

In presenting the post treatment of Polio Myelitis to the medical profession of Oklahoma, I do so with due respect to the discoverer, Dr. Roy Bernard, of 4721 Champlain Ave., Chicago, Ill.

In fact, I am going to quote Dr. Bernard in so far as to make the treatment more explicit and plainly seen as I have seen it given from a clinical standpoint. The disease, as we so well know, is a self-limited disease, in its acute stage, and ends by lysis, leaving its ravages well marked by pathological lesions in the nerve ganglion and plexuses. The paralysis seems to be permanent in the extremities and does its worst, making a permanent cripple of all it has struck, for which we have had no specie of treatment.

Could we know of its coming, of its etiological origin and the specific germ that causes it, we might possibly prevent a lesion. There are not many diseases that humanity is heir to that exceeds its ravages; there being more than two million eight hundred and sixty-five thousand whites and forty-seven thousand blacks in our land affected with this disease. It seems to have no favor between male and female children.

The treatment, for which we must give Dr. Bernard credit, is curing many in his hands as well as the profession who have instituted the treatment as outlined by him. The treatment is unfailing, but the longer time the patient has been afflicted the slower the result. If the treatment is persisted in there is sure to be improvement unless the nerve cells have degenerated to such an extent that they can not be rebuilt. The treatment must be given by physicians who understand anatomical structures of the vertebra and its muscular attachments.

We must concede that the spinal cord is too delicate a cable of communication to manipulate with unskilled hands, therefore my great desire is that the medical profession may have the treatment and learn its technic. To institute the treatment the following technic must be carried out at the proper place. To apply the treatment at another than that mentioned will do no good and perhaps harm. My advice to every doctor is to get

the technic by actual contact of a clinic, but any man who thoroughly understands the anatomy of the child should be able to apply it. A mechanical device has been devised by which the treatment can be given without the lifting strain, and, I believe, can be given with more benefit than by hand. The appliance is adjusted and can be used from two to sixteen years. This appliance is not at all necessary except that it lessens the manual strain for the doctor.

If the legs are involved only, the treatment should be given at the lumbar enlargement, i. e., first pick the child up by placing the palmer



surface of the hands over the angle of the lower ribs, with the thumbs resting on the upper pectoral region, placing the tips of the fingers on the transverse process of the ninth, tenth and eleventh dorsal vertebra, the tips of the fingers acting as a fulcrum. Hold the child out obliquely; hold extended in this position about ten seconds, with hands in same position; press fingers forward and thumb backward, swinging the child;

lower the body toward you between your legs. At the same time, this will bend the spine anteriorly with the maximum bend at the largest part of the lumbar enlargement. Hold this position about ten seconds. (In the first position the child is held straight about ten seconds. This gives the muscles of the spine time to become relaxed.)

Third: Hands in same position to get lateral bending, one hand lowered, the other raised. This movement, aided by necessary movements



of the fingers, will cause spine to bend laterally one way. Hold about ten seconds, then reverse movement to get lateral deviation to other side, which should be about ten seconds.

Fourth: Hands in same position, swing the patient anteriorly and posteriorly for a few times gently.

The object of the treatment, first, is to obtain freedom of blood stream through the areas involved. Second, to stimulate vaso motor function. Third, to aid absorption. To get this mechanically it is necessary to extend the spinal column to the limit of its capacity by the weight of the child only, at the point of lesion or infection, which we take for granted is at the junction of the eleventh dorsal enlargement. The dorsal enlargement is situated opposite the ninth dorsal, to about the second lumbar, the largest part being at the twelfth dorsal. If the hands and arms are involved, the treatment of extension of the spine at the sixth cervical vertebra, have the patient lie on back, place your fingers on each side of the spinous process of the second, third, fourth and fifth vertebra, making an extension that will almost move the weight of the patient's body from the table. This extension should be given from thirty to

sixty seconds. Some cases require a greater extension, so stand in front of the patient, place your fingers on the transverse processes of the second, third, fourth and fifth cervical, gently extend the cervical region until the patient is lifted from the floor, gently throwing the anterior junction of the cervical and dorsal anteriorly. This makes an extension at the sixth cervical, which is the largest part of the cervical enlargement. Hold the patient in this position ten seconds. Gently raise one hand and lower the other, so as to get a lateral movement, then swing patient to and from you gently, using nothing but the patient's weight for extension. The treatment to be applied every third day, a massage being given with olive oil over the enlargement of the spine at bed time by mother. If the arms and legs, or one leg and one arm, are involved both treatments should be given.

It is our aim not to treat these patients too often. Once or twice a week, we think, is often enough, though we think that in some cases the treatment can be given as often as once a day. The physician must be the judge about how often he should treat. You will readily understand that too much irritation of the centers may cause a cellular hyperemia that may result in cicatricial tissue being formed, and, too, it possibly might intensify a recurrent acute stage oftener than would occur in the treatment of many patients. After applying the treatment on several cases of from three to eighteen months' standing, some developed acute symptoms of a little less severity than the original onset, fever lasting from two to five days, and when it subsides rapid improvement invariably follows. This we attribute to the physiological regeneration of the cell-protoplasm; thus causing a gauglionic hyperemia and ultimately a physiological cure.

The cases exhibited at an open clinic at Lake Side Hospital, Chicago, were a few among many that have been cured by this treatment. The treatment is in the hands of other physicians and is meeting with great success—with them as we have seen—and has proven without a doubt that the treatment is paramount to anything ever done before for the alleviation of this miserable disease.

From the clinical records of Dr. Bernard, I herewith quote you some of the data and from these I personally investigated each and every one of them, obtaining the histories and clinical data from the parents.

The following cases have been recorded:

Agnes K, age two years, six months, attacked September 20, 1911; arms and legs paralyzed; previous history negative, except that she sat on cold stone steps. Treatment began November 21, 1911. Third treatment, some motion; walked after the twelfth treatment; arms restored first, improvement in legs followed. January 1st entirely cured.

Richard S, 4264 Hazel Ave., age 11; attacked July 6th, 1912; treatment began August 20th, 1912; unable to move arms or legs, improvement in legs after first month. On January 27th legs cured, forearms cured.

deltoid muscles restored, flexors and extensors of all muscles restored to normal size.

Julia M., age 18 years, 3118 Jackson Boulevard; taken January 6th, 1913; both legs; history, counting dirty money in one of the large mail order houses, treatment began January 14th to March 5th; both legs restored. In this case the muscles of the right leg had become so atrophied, also the gluteal muscles. The muscles of the leg have entirely been restored at this date, April 18th, and the gluteal muscle has filled out to almost normal; she can go through all the gymnastic exercises that any normal person can do, and is pronounced cured.

T. B. B., girl, 3 years old, both legs and arms attacked September 8th, 1912. Sent to Cook County Hospital September 15th; remained there until October 22nd, with no improvement; treatment began October 28th, 1912; some motion was noticed November 11th; November 4th she could stand by holding to a table; November 7th took three steps by holding her up; three weeks later she was able to run and walk; pronounced cured.

T. J. C., age 6 years; son of T. J. C. Right leg atrophied; treatment began seven months after attack; no improvement until after the fortieth treatment, when he improved daily and could walk, run and jump normally. After the fifty-sixth treatment was pronounced cured.

A. T. T., boy, seven years old. Attacked December 27th, 1912; treatment began February 3rd, 1913; left arm and left leg atrophied February 21st. Arm restored entirely after four weeks' treatment; after ten weeks' treatment leg restored and entirely cured.

F. M. C., two and half years old, boy. Attacked April 3rd, 1912, both legs; treatment began April 27th, 1912; fourth treatment, stood alone; eighth treatment, could walk slightly; fifteenth treatment, was able to walk through the house. At this date had the measles. After motion was restored the right foot leaned inward and remained so for three weeks, when he was pronounced cured.

Catherine E., age 11 years. When taken in 1907 had been treated by various doctors and pathies. Commenced treatment January 25, 1913; symptoms: extended foot, left leg atrophied and foot talapsed, lateral curvature, arms and hands involved. After third treatment toes relaxed; sixth to seventh treatment she could catch self and would not fall; atrophy disappearing; could jump rope after twelfth treatment; after sixteenth treatment general improvement, and was pronounced cured April twelfth with all motions normal.

A. T. T., boy, age 7, attacked December 27th, 1912; treatment began February 3rd, 1913. Left arm and leg atrophied; arm restored after four weeks and leg after ten weeks and pronounced cured April 5th.

F. M. C., boy, aged two years and six months. Attacked April 3rd, 1912; both legs involved. Treatment began April 27th, 1912; after four treatments stood alone; after eighth treatment could walk slightly, and

after fifteenth treatment was able to walk through the house. After motion was restored the right foot leaned inward and remained so for three weeks, when it began to straighten and in six weeks was normal. After thorough examination April 26th, 1913, pronounced completely cured.

R. S., age 11, attacked July 6th, 1912. Treatment began August 20th, 1912; unable to move arms or legs; improvement in legs after first month; on January 27th, 1913, legs normal, forearm restored, atrophy of deltoid flexors and extensors all restored.

Lucy B., age 2 years; attacked August 13th, 1912. Loss of legs and back; treatment began April 1st; after fifth treatment some motion of left leg; after twelfth treatment she could raise her face from floor and swing left leg.

J. B. C., boy age 3. Attacked July 28th, 1912; atrophy of both arms and legs and drawn legs and feet; after third treatment he began to extend limbs; after eleventh treatment muscles of legs relaxed and able to straighten legs out and move them. The treatment was begun May 1st, 1913.

Both of these cases to date show marked improvement and are getting daily treatment.

I will demonstrate the technic for you and will be glad to give you all the information possible relative to the gravity of various cases. I wish to say in conclusion that the chiropractics and osteopaths tried to seize upon this treatment and advertise it as their own, but the postal authorities have, by the request of Dr. Bernard, refused their literature admittance to the mails. There is no osteopathy or chiropractic semblance in the treatment, it being a surgical, mechanical and physiological treatment.

SCHISTOSOMIASIS.

By John Craig Johnstone, M. D.

(Clinical History and Laboratory Findings of a Case at Lawton, Oklahoma)

For reason of the fact that this disease has been found only six times in America, I shall quote Edwards as briefly as possible.

Bilharzia disease (endemic haematuria) is due to the blood fluke (*Schistosoma haematobium*). Bilharz described the disease in 1851. It has prevailed for many centuries in Egypt, where Bilharz considered that half of the lower classes were affected. Importation has occurred into India, the Mediterranean Islands, and America. Infection occurs through drinking water, or possibly through the skin. The embryos enter the stomach, penetrate the alimentary mucosa and mature in the veins of the plevis, spleen, mesentery, liver, kidney and bladder. The male worm measures 4 to 15 x 1 MM. the female 15 to 20 x 0.3 MM. The male worm is rolled up like a leaf, forming a groove in which the female sometimes lies. Many ova are usually found in the urine, and less often in the blood and faeces; they are oval, carry a spine and contain a ciliated embryo.

Hematuria is the most common and often the only symptom. Cystitis occurs in severe infection. Stones are not uncommon. Suppuration may develop fistulae. These clinical symptoms result from massive accumulation of ova in the submucosa, which leads to papillomatous hyperplasia in the rectum and urinary bladder, hemorrhage, suppuration, necrosis, salt deposits (calculi) and rarely to malignant degeneration. Similar changes in the rectum cause pile-like papillomata, dysenteric evacuations and tenesmus; also many complications may develop in the plevic organs. The eosinophiles are increased to 10 to 50 per cent.

The parasites usually die slowly, and as no local or systemic remedies modify their life history, treatment must be expectant.

Patient—Mrs. Adaline Walters, age 64, weight 160 pounds, height five feet one inch; occupation, a tailor for many years before contracting her disease, now "retired."

Personal history—Pertussus at 11 and some bronchial trouble always afterward. Chronic malaria for seven years when quite young. Finger-like tumor with "roots like a spider and called cancer" was removed from the side of her neck when she was ten years of age. Menses began at fifteen after marriage; hands swollen and eyes bloated before married. Menses continued regularly till 58 years of age. Had diphtheria at 35. Has worked hard since 15 years of age. Has not used alcoholic drinks any time in life.

Family history good.

Physical examination February 24th, 1913. Patient seemed to have a general septic condition, with localized process most nearly simulating a bronchiectasis or fibroid pneumonia, centered principally in the middle lobe of the right lung. Temperature 102.4, pulse 126, respiration 39, reflexes good. Very coarse rales, closely localized in middle lobe, nipple line of right side. Heart showed considerable embarrassment, with a bad mitral and slight pulmonary regurgitation. Liver extends two fingers breadth below costal margin of its respective site.

Past history—Sixteen years ago, a crusty cast began to form at the heels and extended forward to the toes and thence up over the toe nails. This crust was very brittle and would crumble up like so much sand when rubbed between fingers and thumb. The patient said that fifteen years ago her liver began to make her right side feel as if she had a board tied there. She has had a colic and diarrhoea at frequent intervals for the past fifteen years, and an especially bad attack of diarrhoea when she lived in Mississippi four years ago. Sometimes her colic was so severe that she would get out of bed and roll on the floor.

About seven years ago well-known physicians of New York and Ohio told this patient that she must be operated on for gall-stone trouble. One year ago a well known physician of El Reno prepared Mrs. A. W. several times for operation for gall bladder trouble, but couldn't operate on account of her bad heart. Seven months ago Dr. D. A. M., of Lawton, re-

moved a papilloma the diameter of a small walnut, two inches long, and suspended by a pedicle less than the diameter of a lead pencil, from the rectum above the internal sphincter. This tumor, the patient said had gradually grown larger for the past thirteen years. (Patient said she often imagined she had stones in the urinary bladder.) All this clinical history of the liver, bowel, papilloma and bladder trouble, of course is very typical of the disease of Bilharz.

After eliminating every other disease which might cause the hematuria which I found constant in all of a dozen urinalyses, I watched for the ova of the parasite under discussion and found them very abundantly in the urine. I next found the ova in the blood and lo and behold! I found the ova and the adult parasite, both male and female, in the feces.

On examination of blood smears, I found a 43 per cent eosinophilia, a few of which were myelocytes, 53 per cent small and medium size lymphocytes, 3 per cent large lymphocytes and one mast cell.

Of course, this very high per cent eosinophilia is due to the schistosoma hematobium, but the lymphocytosis, which is also very high, is due both to the patient's chronic trouble and her recent paroxysm, which, as stated above, showed a general septic condition about February 24th, 1913. She had a very irregular temperature since that time. The red blood cells showed very many normoblasts and the patient has improved wonderfully of late. Haemoglobin is fully 90 per cent, red cells count is 4,400,000, white cell count is 30,500, and I think it was a great deal higher a month ago.

A NEW PROCEDURE FOR THE RELIEF OF THE RETROVERTED UTERUS.

J. F. Kuhn, M. D., Oklahoma City, Oklahoma.

By way of excuse for this paper, I desire to say that I have long been at variance with surgeons as to the advisability of operating upon the retroverted uterus. And since this is true I naturally have a hesitancy in broaching so widely discussed a subject. I shall leave for your discussion the various causes for retroversion, and only touch upon some of the effects upon the general health and well-being of those unfortunate women who show distressing symptoms. Fortunately not all women are affected or show any ill effects from this condition. Especially in young women we will find many suffering no serious ill effects from retroversion, and only in those that are not easily relieved by other means is the operation done. Many of these have no varicocele, and in those who do not I do only the plication of the infundibulo-pelvic ligaments. Those suffering only at the menstrual periods usually have an associated flexion, or slight varicosity of the veins of the broad ligaments. The vast majority of the prolonged cases do have the varicocele, so both steps of the operation are followed.

Retroversion: Not the result of inflammatory adhesions, lacerations, or relaxation of the pelvic outlet; produce their symptoms through ptosis

of the abdominal viscera, including the pelvic viscera, one or all of them, engorgement and finally varicosity of the pampiniform plexuses, and incarceration of one or both ovaries within the folds of the rolled broad ligaments.

Where adhesions exist, or where there has been laceration of the pelvic outlet or the cervix, a definite causative factor is easily recognized. Where a relaxation of the pelvic outlet is present the cause is more obscure. Relaxation without laceration following labor is not uncommon. An unrecognized minute spina-bifida, or undeveloped perineal muscles and fascia, are most commonly met with. Where adhesions or lacerations are present they naturally require proper attention first; and where subinvolution exists, it is my belief that a long period of preliminary treatments should be instituted, having for their object regular intermittent stimulation of active uterine contraction, to be followed by one or more careful curettements. Where relaxation or undeveloped muscles and fascia are the probable cause of the retroversion, no symptoms referable to retroversion alone are likely to be present. General visceral ptosis is a separate condition which I would not attempt to discuss in connection with this subject. These patients require an entirely different treatment which does not fall within the scope of this paper.

Where simple uncomplicated retroversion of the uterus occurs, the symptoms are usually produced by varicocele and the squeezing of the ovaries within the folds of the broad ligaments, together with ptosis of the pelvic viscera. This is also largely true where inflammatory adhesions are present, especially where the inflammation has subsided. It has been my experience that every case presenting evidence of past inflammation of the pelvic structures, especially if of long duration, invariably produces these varicosities—probably due to a prolonged infiltration and then finally weakening of the vein walls by stretching of the connective tissues which results. It must not be understood, however, that I consider all varicosities due to this cause.

The good effect of treatment by shortening the round ligaments has been due to the easier drainage of the affected veins and the unfolding of the broad ligaments; but the relief is seldom total. Where a ligation of the veins accompanies the shortening operation the relief is much more complete and permanent. Having observed this I was forced to the conclusion that the relief afforded was the result of accidentally doing the right thing occasionally and not with a thorough understanding as to what was giving results in a few patients and leaving the majority only partly or not at all relieved. The results were always uncertain and no patient could be told certainly that she would get permanent relief.

Again it must not be understood that all patients are suffering with varicocele along with their retroversion. Believing that a combination of operations would give certain results in every case every time, and considering the factors above mentioned, the chief ones in the production of

symptoms, nervous as well as others, I began eight years ago in the few cases I could command, the following method of procedure:

The pampiniform plexuses are both ligated. The ligatures are placed at the pelvic border first and firmly tied in front, leaving long ends of sutures, which are clamped. Next, ligatures are placed at the uterine border, tied in front, and the long ends clamped. The engorged veins are now incised and the static blood expressed. Then opposite side is treated in like manner. The result of this first step is to draw the uterus forward in the pelvis and leave the infundibulo-pelvic ligaments greatly relaxed. So the logical second step is the plication of these ligaments. This is accomplished as follows:

An incision is made on the anterior border of the broad ligament over the infundibulo-pelvic ligament, exposing it for about one and one-half inches, or as much as will be necessary to take up the slack. A running suture is so placed that when drawn tight and tied it will fold the ligament and hold it firmly. A pursing suture is now placed in the peritoneal incision. If these steps are carefully done, no raw surfaces will be exposed and no hematomata will result.

The uterus now lies in its normal position and it cannot be forced into the cul-de-sac to stay, always easily righting itself, and it will remain in its normal position long enough for intra-abdominal pressure to exert itself normally and do its part in affording permanent support. I found in my early trials that the first few days, and sometimes weeks of convalescence, patients suffered considerable pain which I ascribed to the unnatural tendency of the uterus to return to its abnormal position, thus dragging on the tender ligaments. To obviate this, I have within the past two or three years supplemented the two steps with a third, as follows: A simple ventro suspension is done, being very careful that the loops of ligature are long enough not to bring the parietes and uterus together.

Foot Notes—The round ligaments are left untouched so that there may take place within them a full development of the musculature of the structure. They are always over relaxed following the restoration of the uterus to its normal position, but they should be left alone, for they will quickly undergo full development and soon return to normal. Cutting them or suturing into some abnormal position may interfere with their development, and may even go so far as to cause atrophy. Certainly many Baldy operations (no matter how carefully done) are bound to produce a certain amount of atrophy, and what these ligaments need is a fuller development.

The matter of falls in young girls as a factor in the production of retroversion may be raised. To my mind, falls only produce the acute retroversions which are so instantly and exquisitely painful that they relieve prompt care and are cured by other measures. A fall may also serve to discover a long-existing retroversion which had not given serious symptoms until the injury. Falls may produce a weakening or atrophy of the

perineal structures and consequently retroversion as a result of general ptosis, but then the uterus descends slowly and is only discovered later when other illness brings the patient to the physician, and the examination reveals the true condition. At this time a history of some fall is always obtainable. We should, however, remember that everyone has had severe falls at some time in their lives and too much weight cannot be given this item in the history of any individual patient.

Where flexion accompanies version, I thoroughly dilate the cervical canal well within the uterine cavity and pack with a narrow strip of iodine gauze to be left 18 to 24 hours.

Where dense adhesions exist I postpone the operation when patients will permit, and treat them until adhesions become velementous.

Where lacerations are present these are properly attended to before attacking the intra-pelvic structures.

The patient is kept in bed twelve full days.

Number 2 plain catgut is used for all of these procedures.

CHILDHOOD AS A FACTOR IN THE PROFESSION OF MEDICINE.

Dr E. Forrest Hayden, Tulsa, Oklahoma

My first ideas in connection with this subject were along the line of differentiation between the methods of diagnosing diseases common to young people as compared with similar processes employed in adult patients, and also as to the different means of treatments used, as well as the difference in the process of treating the same diseases when found in both the young and grown-up patients. We are prone, perhaps, to consider every pathological manifestation, more or less, from the age of the patient, which in a measure is true, but not sufficiently so as to render treatments distinct according to a matter of age alone. For instance, the time-worn expression so frequently handled by the laity: "He is a good doctor for children, but I would not trust him for myself or for my wife," and so on, implying that in handling the diseases of childhood there is required a kind of knowledge peculiar to itself, or that the diseases of children partake of the child stature, or in other words, a small amount of skill and less of knowledge will meet the requirements of childhood. All of us have been plied with such suggestions, and have been made to realize the extreme fallacy of their makeup. Typhoid fever is typhoid fever still, whether existing in the body of youth or in the person of the adult. Scarlet fever loses but little of its hazards whether existing upon the economy of youth or upon that of the aged.

But it is the physician's relationship to the child life that is a most interesting one. We are the first to greet them when they first cross the great threshold of life. We are the first ones to anticipate for them the great meaning of a responsible voyage of years across the billowy sea of life. We begin with childhood where Divinity has left it fully delivered into this world through the miraculousness of the process of a physical

birth, and we are concerned in their welfare down through a period of years, extending from birth to the time of puberty; to the time when children become physically, mentally and morally responsible; to the time when the species is capable of reproduction. It is then that childhood ceases and manhood and womanhood assert themselves. When individuals begin to recognize right from wrong and are able to differentiate good from evil, or the one from the other, it is then that childhood fades into the more mature life, and we have spent our time and our opportunities to effect the most good in the world of youth. It is with the thought of the colossal relationship of the physician to children during the character-building period of their lives that we get a comprehensive idea as to what our influence means to the future and the oncoming generations.

We hold in our hands the possibilities of the yet unborn, so far as we are capable of teaching expectant mothers the bearing that maternal influences may have upon the foetus while yet in the womb. It is not assuming too much when we state that our influences begin in the child life; coincidently with the first manifestations of life in the womb; at this time, however, our knowledge can be beneficial only so far as we are able to impress upon the mother the scope of maternal impressions. At this early period we can begin the intelligent formation of character and to command the future welfare of our on-coming citizenship. We may by comprehensive efforts, during the formative period of life, even expect to cheat heredity of her accustomed achievements and change the very concessions that have heretofore been accorded to her through the channels of natural tendencies and environments. We can, by thoughtful methods, thwart the possibilities of distorted bodies and diseased brains being born into the world, and make absurd the reproduction of celibacy and crime. It has become our highest mission as physicians to so control the possibilities of children to the extent that they may be developed into the most perfect kind of human beings, and to mould our young people into the purest and most select types of citizenship. This should be the supreme aspiration of every individual.

In order to bring the American people up to the standard of the highest quality of human heritage, it behooves us to start the process at the earliest teachable age, and bring them, as they approach the adult life, to the knowledge of the responsibilities and the peculiarities of sex. Our children should be taught the exact meaning of the laws of nature, and how to interpret them in the light of truth, and on the other hand, the woeful consequences incident to their disobedience. Girls should be taught the things that behoove them as a sex, and likewise the boys.

Our first aim should be to provide intelligent means that will give the best possible physical development. A strong and well-developed body readily becomes a fit place for the indwelling of good morals and a clear mind. Sin in its last analysis is none other than disease. The time has come when every crime and every derelict act is the direct outgrowth of a diseased body and a crippled brain. The sins of our forefathers have been

visited upon us, and will continue to so be done until we correct the mistakes of the present generation and carry the good results on into the next.

No doubt our greatest field of endeavor should be lined up along with and in conjunction with the machinery of our public school system. When parents concur with school officials and they in turn work in harmony with their teachers, we will have accomplished much to put on foot an organization whose possibilities for doing good have never heretofore been paralleled. The physicians of the country hold within their immediate grasp the keystone to the situation. All of us must sooner or later acknowledge the inevitable laws of nature and become the victims of the process of decay and death itself; however, we are obligated by the same laws of Divinity to develop into perfection our various talents, whether they be one, three or five. We should encourage every movement that is calculated to give the most perfect development to the body of every boy and girl. The Boy Scout movement is a most worthy proposition, and the plan of its organization a laudable one, and one that merits our individual support and recommendation. It gives to boys the spirit of self-reliance and promotes personalities of intrinsic worth, while at the same time it engenders individuality. It makes possible personal endurance of any sort of task; it puts boys in contact with emergencies, and by developing in youth these necessary propensities, they become in after years capable of successfully meeting every contingency common to human existence.

We, by reason of our knowledge of human nature, ought to be the better prepared to recognize the traits characteristic to young life, and to develop them for the advancement and betterment of posterity. Every child is born with an innate tendency to play. It is through this instinct that the frail forms of youth later become the sturdy bodies of the grown-up folks. The spirit of play sows the seeds which in later years produce the abundant harvest of congenialities such as rob adult life of the grewsomeness of its burdens, and gives harmony to the ordinary routine of events.

A distorted, twisted, lopsided and ill-nourished body is a pitiful thing to look upon. Health brings gladness. Every school ground should have its director, and no college should be without a gymnasium. Foot-ball, base-ball and all other moral games, with the exception of a limited number of broken bones, are the precursors of good health, stalwart bodies and of productive brains. Exercise brings quantities of air with its oxygen into the lungs, making them strong, which is the greatest outpost against the great white plague—tuberculosis. We are each day fighting with new found zeal and with intelligence this great white plague, and it is only through the cultivation of stamina and the development of physical strength through well-defined exercising of all the physical possibilities and activities that we may hope to be victorious in our determined conflict. An ounce of preventative along this line is well worth a pound of cure in the way of well-regulated hospitals and pavilions prepared for them who are already sick unto death. Exercise creates strong hearts to send pure blood

from healthy lungs on through the channels of the circulation to nourish every dependent cell and tissue of the body. Exercise develops strong digestive organs upon which the entire body must depend for its supply of nourishment and its recuperation, its regeneration and resources of renewed vitality. Health of body and goodness of soul seem to go hand in hand. "As a man playeth, so he is."

We should not be averse to the affairs concerned in the labor question. Mississippi and Maryland have recently passed effective child labor laws, and South Carolina has passed a bill to increase the appropriation for factory inspection and to regulate the night messenger service. Bills for more effective laws are still pending before the Virginia, Massachusetts, Rhode Island and North Carolina Legislatures. Investigations have been made into extensive tenement home industry of New York City. This means speedy redemption for the children who have been consigned by force of circumstances to a position of depraved and dwarfed mentality through monotonous work and depraved means of living. The children of such deplorable circumstances will in the long run become objects of charity, because it is from this class of stunted beings that come eventually the physically incompetent. In the last seven years the American people have forbidden the employment of the labor of children under fourteen years of age in seven northern states, seven western states and in the District of Columbia. They have prevented children under sixteen years of age from night work in eight northern states, five southern states and eight western states. They have likewise prevented children of the same age from doing labor in coal mines in the states of Colorado, Illinois, Kentucky, Massachusetts, Montana, Missouri, New York, Ohio, Oklahoma, Pennsylvania, Texas and Wisconsin. Thirteen states have passed laws requiring physical examinations before being engaged for labor; and so on down the line almost indefinitely can be mentioned laws varying in their nature which have been passed for the betterment of the condition of child welfare.

Again, more interest on the part of our physicians in connection with our school system would not be labor lost by any means. Every school should have some sort of an examining board of physicians whose sole duty should be the passing upon the physical condition of children upon entering school, for the first time, especially. Both children of town and districts should be placed under a similar management. The old idea that children of the rural districts are more healthy than those living in towns and cities should be done away with. Infinitely more children living in the country do not have proper food and clothing, nor are they provided with environments conducive to the making of more healthy boys and girls, and in the end men and women, than those who are in the cities. At this examination, cards should be sent out to parents apprising them of the condition of their children. Under such an examination 10%, at least, will be found deficient. Furthermore, parents should be advised to send these deficient ones to their family doctors or physicians for the necessary treat-

ment. After these children have been rightly looked after, the cards should be again returned to the teachers for refiling and future reference. When parents have been so enlightened in reference to their children and have been taught something as to how to proceed in caring for them, they will naturally become enthused with an interest that will, at all times, be co-operative. It is appalling when we begin to think that 98% of our school children have tonsils so enlarged, and with accompanying adenoids, as to be greatly handicapped in both health and study. All who are thus affected must grow up under-sized. From the above mentioned diseases of the throat, deafness arises which becomes a serious obstacle in the ordinary pursuits of life.

We could go on indefinitely enumerating the ill-effects coming directly from diseases of the eye, nose and throat; however, the plan is to keep every kind of the minor defects and infections out of school life, so that every child may spend every day of every week at his or her studies.

Hookworm is another trouble of vast importance, and its possible existence should be kept in mind. In order to sum up the outline of this paper, it is only necessary to make a resume something like this: Instruction to mothers during period of gestation, as to her influence upon the yet unborn; our relationship to children who must labor; our duty to children previous to and after entering school life, what we owe them in reference to a knowledge of self, and what we should teach young boys, especially in regard to venereal diseases which means wreck to the lives of myriads.

DISCUSSION

Dr. —I do not think I have listened to a paper more interesting than this paper is to us. Dr. Hayden has brought these matters out in a way that it ought to make it easy for us to discuss the paper—the fact that from the very time our children begin development and the maternal organs begin to influence the life of this unborn child. How many times we can see this patient has not been looked after carefully. How many have examined the urine to see if the mother is in good condition? How many are looked after carefully after confinement? We will have to admit that we become lazy as general practitioners. When we look into this subject carefully, as Dr. Hayden has brought it out, we think again of the Bible story: “The sins of the father shall be visited upon the children even unto the third generation.” These are things we all should get hold of and if we can get hold of this child body we certainly can help that part of it. We are all slack in our diagnoses. It is a very important part of medicine.

Doctor from Higgins, Tex.—I am very much interested in this paper. I am not a member of your Society or a doctor of your state. I appreciate that paper more than any of them. It is along the line that is so badly neglected. I take the position that every gold tooth that a dentist puts in our mouth should be looked on as a dunce cap to a doctor. The

dentistry should be done before the baby is born. When a mother is suffering from toothache the mother needs the elements that go to make up the tooth. A child's teeth will sometimes decay before they are ten years old. It is not what they eat; it is the lack of what they need. It is not the chemicals. It is the lack of lime and that is what we ought to give these mothers. I do not believe any woman who has puerperal sepsis was given enough lime. It is for the want of lime and you can saturate your mothers with lime and they will not have puerperal eclampsia. We ought to see to it that all of our mothers get plenty of lime. I certainly appreciated this doctor's paper. These are things we ought to all be boosters for.

Doctor ———I think the Doctor's paper was well written. There is one little point I wish to mention—the working of children in mines. It is a fact that the Oklahoma law forbids that, but today they are paying no attention to that law. The father takes the child down under the ground and lets the child help him. I think we need an amendment to the Oklahoma laws for letting a child help him.

Doctor Kelso—A paper like that written to two or three hundred fathers and mothers would be educating that class of people. A paper of that kind read to educated physicians drops on barren ground. We have all studied and know all about it. I mean no criticism to that Doctor, but the proposition is to bring up subjects of that kind before the class of people whom it will do good. It does very little good to read a paper like that before a section on pediatrics when we have not a section large enough to command the attention of physicians. If it had not been for a telegram to our honorable chairman it is a fact that this section would not have been called to order. The questions brought forth by the doctor Emerson said: "If we want to make a good child we should begin 200 years before it is born." It will take probably 200 years today to make some of these families at the present time develop a good healthy child. We all know what we could find among some of our patrons. I think this paper to the legislature would have been a good thing, and I do not know but there is where we must go, to the fountain head, to get what we want. If we have a paper on Eugenics we want that paper published so it can go before the public. I think this paper should be published in the lay journals as well as the medical journals. I believe that paper should be published in the lay press.

Doctor Coleman—I had the pleasure about a week ago of going to a fine hog show. About two miles from town I saw about the finest line of hogs in all the country. This man told me the week before he had sold 150 head. The most of them brought about thirty dollars a head. He said at a public sale they averaged about fifty dollars apiece. He has been two or three years in working up this stock. If the people of this country had been given anyways near the care that was given these hogs we would have had a very different class of people today, but we seldom explain, or try to explain to our parents, and our mothers, things that are of vital

interest. I had a case last week. I mention this because of the fact that so many of our school children are being neglected, and why we should not neglect the mothers after two or three months. This family has smart children. The little boy has a kind of a capillary bronchitis. He went to school since he was six years old and he got along nicely, but he was not keeping up with his class this year. He was a good boy to study but he could not keep up. I asked a few questions and found that little Harry was unconcerned about his studies; that he did not seem to pay any attention when you spoke to him. They brought him down the next day. I saw he had adenoids and diseased tonsils. We had the polypi removed and when we get the tonsils that boy will get back to his normal state, but there is a possibility that boy will never do what he would have done otherwise. I ask who is to blame for that? The parents? No, not necessarily. It is a lack of legislation to force the parents and force the management to have these children examined. I insist that school children should be examined at least twice every year to find if they do not need some attention. This paper is certainly along the right lines. It is our business as guardians to see that our patrons are well and keep them well.

Doctor Landrum—The best way in the world to reach our people is through our weekly newspaper. The editors frequently pass us on the street and ask us what we know. We may tell him something that is worth while for the people to know if we take him to ourselves. I have done that sometimes, for an intelligent editor can do a great deal for the people in an indirect way.

OBSTETRIC IDEALS IN RURAL PRACTICE.

David L. Garrett, Altus, Oklahoma

The fundamental truths of obstetrics have been so definitely ascertained and are, as a result of voluminous writings from the great teachers of medicine, so readily accessible, that further comment and discussion may at first blush seem superfluous. The watchword "Asepsis" has flown from lip to lip until it would seem that every labor, save under extraordinary and unusual circumstances, would be conducted under its beneficent ministrations. Sad though our confusion be, and painfully as we may appreciate the ignominy of our admission, such is not the case. Having admitted the existence and prevalence of incorrect practices and usages, it behooves us to find the underlying cause of such a condition. Is it because we as practitioners are indifferent to the obligations that we assume when engaged to conduct a maternity? Is it because we are ignorant of the fact that germs introduced from without are responsible for the vast majority of cases of sepsis with which we have had to deal?

But recently a most thorough and sweeping investigation of the methods of teaching, and the mode of practice of obstetrics, by one whom we delight to term a "leader of the profession" and a "Master Mind of Medicine," has convinced him that we, the medical profession of the

United States, were and are most inadequately taught and possess most extraordinary proclivities toward banishing from our minds the little that is given us for our enlightenment and betterment. Let us consider the conditions which the great body of general practitioners are called upon diurnally and nocturnally—largely nocturnally—to face, and to cope with in a satisfactory manner. We find a field in which the sentiment of the community is guided by the myths, legends and traditions handed down through generations of noble, worthy, indispensable elderly members of the feminine sex, who enjoy the dubious distinction of possessing more misinformation than any other class, body or sect under high heaven. As Josh Billings pertinently remarked: "The trouble with some folks is, that they know too many things which aint so." We have here a class of practice, in which the physician is most closely observed for variations from the time-honored technic of some medic of a day gone by, long since gathered to his illustrious fathers. And having had the temerity, unwittingly or no, to introduce some modern innovation, woe unto the luckless accoucheur if some untoward outcome is the sequel!

We are taught to have the woman bathed, an enema given, the pudenda shaved, scrubbed and cleansed, and patient clothed in a sterile gown, placed upon a sterile sheet by a trained nurse, who probably specializes in obstetrics. We are confronted with a woman in labor who never saw a R. N., who seldom bathes, has no fountain syringe, who never had more than one clean gown at a time in her life, who has purposely left a soiled sheet or dirty comfort upon the bed, because it being contaminated by the lochia would have to be changed anyway, and who would feel that with the loss of her hirsute covering, she had been shorn of a major portion of her womanly modesty. We are told that during the latter months of pregnancy we should examine the urine at weekly intervals; that from four to six weeks before term a careful physical examination should be made. Often we do not know of the case until labor is under way, and seldom are we engaged until the latter weeks of the period of conception.

It is clear then that no stereotyped mode of procedure can be applied to the conditions we meet in actual practice today. Our plan of management must vary directly with the economic resources at our disposal in each individual case. In general and by a concerted action of the profession, we can slowly lead the people to engage a physician early in pregnancy; then proper urinary examinations may be made, blood pressure observations recorded, and the more fortunately situated, properly instructed as to the hygiene of pregnancy, and the advantages of a nurse during confinement. In many instances of normal labor, the most that we may do is to regard the vagina and cervical canal as a "nole me tangere," utilize rubber gloves, perform careful elbow scrubbing, watch finger-nail tips and avoid intra-pelvic manipulations.

When obstetrical operations are forced upon us, let them find us prepared with properly packed sterile towels, flat gauze, sponges, packing gauze, sterile boots, perineal sheet, sutures, instruments, tr. green soap, bi-

chloride of mercury, alcohol, the ability to disregard the false modesty which avoids necessary exposure, and an abiding faith in the resistive and reparative powers of nature.

In our present state of enlightenment and indifference, both lay and professional, the single-handed pioneer in the outlying districts, unless he has the sympathy and co-operation of his confreres, can do little save transfer the greater part of his practice to more discreet practitioners of the healing art. In order that labor cases may be conducted in a scientific manner with due aseptic precautions, proper preliminary examinations made, with correct after care, we must either revolutionize existing economic and social conditions which is manifestly impossible, or we must by improving the standards of medical education, impart a spirit of accuracy and progressiveness to present members of the profession and promulgate by concerted action of the local county societies the latest knowledge upon the subject of obstetrics. Inasmuch as the conduct of labor in private homes is so infinitely more expensive than when done in properly equipped hospitals, if we are ever to attain the best results, we must instruct the public that it is more advantageous to have suitably equipped institutions for the reception of pregnant women than to needlessly sacrifice lives from the many preventable emergencies of this branch. When a demand for these institutions has been created the city, county and state under the irresistible pressure of an enlightened public opinion, seconded by the demands of an alert scientific body of medical men, will see that they are provided.

DISCUSSION

Dr. Gran: I am of the opinion that there are several country doctors here today. I practiced in the "sticks" a number of years before coming to the city, and came in contact with this class of cases for twelve years, and while modern facilities and practice among that class of people altogether, it would seem that with about three-fourths of our cases we get along all right. But with all the modesty we have to deal with, with all the filth and dirt that we come in contact with, still we have very good success, and very little trouble following those cases, strange to say. I think that that can be very easily explained from the fact of living with every germ of every kind that they have formed a sort of immunity. And while the doctor has put down an ideal country practice as he deems it, I find that in the cities among the poor class we meet with the worst kind of conditions, while from the standpoint of false modesty, they deem that a doctor coming from the later schools care nothing about modesty. I have tried, and have been very successful, in educating myself as to what a doctor should do. He should be taken as a friend and more to be regarded as a friend than a minister. And then there is no false modesty in doing the work that he is compelled to do. Now I might just give a little case of a lady that I waited on, when I first left college, that demanded a reasonable amount of cleanliness and I was advised that I cared nothing for her modesty. They employed another physician and I told the parties in

a kind manner that they might just as well get the ancient people, but as a physician I insisted on knowing what I was doing and the best way that I might do that was by my inspection. During twelve years I have only had two cases of infection—one was from the meddling of the patient's own mother, who used a dirty fountain syringe, and the other was waited upon the mother and was infected, and died in three days. I want to say that Dr. Garrett's paper certainly is well prepared.

Dr. Fowler, Oklahoma City.—I think what Dr. Gran says about the city practice is true. The majority of my practice in the city is under practically the same conditions as we find in the country, but in the practice of obstetrics it seems to me that it is a question of ideals, not of location or equipment. We can certainly advise the people that it is safest and best for them to have an examination made before the time of labor. If they decline to have this examination, of course we cannot help ourselves. But if we should not make this examination before labor, it is important to ascertain at the first examination of labor the position of the child, the size of the pelvis, and the comparative size of the foetus. Most of these delayed cases are from too large size of the head. Besides diagnosing the position and presentation you can ascertain the most important things about the pelvis with your hand. You just pass your two fingers into the vagina and ascertain the general contour of the pelvis, the thickness of the pubic bone, and the angle of the pubic arch, also ascertain whether or not the head will engage, then pass your finger right up along the sacrum until you reach the promontory. With the forefinger of the opposite hand indicate where the subpubic ligament comes in contact with the radial border of the examining finger or hand. Know beforehand where this should be on your own hand in the normal case. If the patient will permit no other examination you can still make this one.

Another thing that you can do—you can advise people to take a bath at the beginning of labor. Tell them to wash especially the hips and finally the rectum. First doing this with soap and water and then an antiseptic solution. We can be just as careful in cleansing our hands in the country or in the poor home in the city as we can in the good families in the cities. I think that a great many infections come from our own carelessness. I find that some people are prejudiced against using a great many things that we use and prescribe. When we make the examination if we will just draw the sheet up between the knees, and if we have our hands properly cleansed, there is not nearly so much danger of an infection. I think we should use all the diplomacy possible in doing our duty toward our patients.

Dr. Kuhn: I appreciated this paper a great deal. I think a great many times the essence of our paper is lost by the broad literary style in which it is written. I appreciate that in the doctor's paper. I was also a country doctor at one time. In fact, my first practice was just simply in a wide place in the road. About twenty years more or less were along that line. During the thirty years I have been practicing, I have had sufficient experience in obstetrics to lead me to this one conclusion. That

physicians have conditions to learn. The most difficult practice we have and the practice that is the most remunerative is obstetrics. The general practitioner has obstetrics not directly in the case of confinement, but the general work which it brings. If you are employed in a case of this kind and act in the manner you should, it is usually immaterial what the old man says or does. That is your family to look after and you will get the work from the family from time to time from the simple fact that you treated her in the way that she deems a gentleman should treat a woman. It is true that many of us in our younger days had not learned from experience those points which are necessary to our good grace in obstetrical success.

Nature is the greatest friend the physician has. Every effort from a physiological standpoint is to perpetuate and build up life. If we have a pathological condition it is a physiological condition to prepare, because nature is endeavoring to throw off that condition to prepare a natural physiological condition. Now we may be as careful, as cleanly, and as dexterous with the use of our fingers in making the examinations but sometimes during the examination, if it is a prolonged case, and it usually is, I think that many a time we examine too often. I think that is one of the troubles in obstetrics. More especially in our younger days. We are often anxious the same as the patient is and it is very hard indeed with the surroundings we have many times in the ordinary home and our rural practice is among them. There is where we have our trouble, is that we meddle too much. I believe the record says that nineteen out of every twenty cases of confinement get along all right without any particular trouble. If this is true then we can readily see that if we have trouble in eighteen cases we have been wrong. If we have trouble in three cases, a little worse still. But you take the average physician and he has comparatively little trouble. There is very little infection in the country practice. The cause for that, the doctor explained very nicely. The habits of the country woman are in her favor. The general sanitary surroundings generally speaking, are not any better in the country than they are in the city, but it is the individual conditions that are developed by her habits, by exercise, by riding, by working, the general exercise that she gets. Take a patient and let them have plenty of exercise, take a walk of two or three miles every day, or as far as they will, and I think that accounts to a great extent for the development of the condition to make it easier for the rural woman than for the city woman. We are all practically country doctors, for we all attend to more or less of these cases at their homes. In my obstetrical practice when I can get a case to the hospital, I take them to the hospital. And the principal reason is that it is a good deal better for them. It is worth considerable more to the physician to have his cases in the hospital.

Dr. S. H. Landrum, Altus: I have often doubted the advisability of suggesting first aid to the injured. Often if a woman tries to cleanse herself she will do herself more harm than good. In the Civil War when a man was shot through the lungs and left on the battlefield he had a

chance of recovery. If he was left two days on the field he had some chance to recover. But in all probability if he had been rushed to the hospital in an ambulance and operated upon he would have died immediately. If the woman who is going to be confined makes no preparation whatever, and the doctor she sends for has any sense there is no reason why she should be infected. But if he undertakes to get her ready like they do in the hospital, he meets with a great many obstacles. I would rather have my way about it than to undertake to deliver one whose mother was so clean and who made all the preparations. I would not advise a woman to take a full bath and prepare herself for labor unless she had some intelligence about it.

Dr. Garrett, Altus: There are women who take a great deal of exercise in the open air; keep regular hours and eat regular meals of simple, plain substantial food, and in those cases there is no reason why we should have an infection. They are in a condition to throw off all germs. It is my opinion that lots of times we get more infection where the very best care is taken in preparation. I still think that one to 2000 of bichloride solution should be used on your hands and elbows, and that particular attention should be paid to the finger nails as they are of a great deal of importance. That we should have the patient upon a sterile sheet and then handle the forceps and the other instruments in your hands without coming in contact with something that is dirty.

AMPUTATION OF THIGH OF PATIENT 108 YEARS OF AGE, FOLLOWED BY RECOVERY.

By Dr. Fred S. Clinton, Tulsa, Okla.

On September 4, 1911, shortly after 7:00 p. m., Mr. Jimmie Walker, a Shawnee Indian, had his left foot and leg, involving the knee joint, crushed while attempting to crawl from beneath a moving car where he had sought refuge from a shower of rain while the train was standing on the siding in Tulsa, Oklahoma.

Under the writer's direction he was removed to the Tulsa Hospital, where the character and extent of injury was observed to have determined the fate of the maimed man's leg.

The general condition of patient on admission into the hospital was quite satisfactory considering the gravity of the injury. However, there was greater bleeding in this case than is usual in injuries of such character, due to the arteriosclerosis. Dr. J. C. W. Bland administered the anesthetic and amputation of thigh about junction of lower and middle third was completed and patient returned to bed in good condition. The only matter of unusual interest aside from the man's age, that of 108 years, was the condition of the blood vessels, which of course were in keeping with a man of his age. All of the arteries and even the arterioles required ligation. His recovery was uneventful.

He was dismissed from the hospital October 31, 1911. He walked unaided out of the hospital and rode in an open wagon twelve miles to his home.

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EDITORIAL

A MATTER OF SIMPLE REVERSEMENT.

It has been more than once suggested to the writer that the altruistic members of the medical profession, health officers of the country, and allied lay organizations are having an uphill task in accomplishing their worthy plans for the benefit of the people. It has no doubt been observed by every man who undertakes the work that his propositions are received by the legislature and observed generally with skepticism, and often his motives are questioned as dark and ulterior. The recent Minneapolis meeting shows that more than ever the medical brains of the country is directing its efforts to the prevention of disease and curtailing its own income. It is impossible for the good motives of these men to be appreciated by selfish people. It is impossible for the motives of these men to be appreciated by people whose only object is the accumulation of money. It is a noticeable fact that a legislature almost invariably does the reverse of what the medical profession suggests, and with this in view it might be well for us to consider entering on a propaganda, looking to our own selfish gain. It might be well to request the Oklahoma legislature to pass no more laws for the betterment of the public health. We could show them that

they were depriving the doctors of money by such legislation. We might show them that the suppression and prevention of disease meant the suppression and prevention of accumulation of money on the part of the physician and that by all means they should stop it. We might ask them to allow smallpox, scarlet fever, diphtheria and other such small matters to go unchecked and uncontrolled. We could tell them that we were here to handle that situation and that if the people got sick that we could treat them. We might also suggest that every man who wants to treat the sick should be allowed to treat them. We might suggest that the requirement that a doctor be educated and know his business was a harsh one, and that its enforcement meant a hardship to the doctor. With such propositions as these placed before the legislature, there is no doubt but that they would hold up their hands in horror and at once stigmatize the medical profession as a lot of vultures, but it would have this good effect—they would pass the laws we need just to spite us. The sacrifice possibly is rather great and is indeed a complete reversal of our previous propositions, but it has for its end the attainment of the things we have wanted for years.

JACOBI.

One of the touching episodes of the Minneapolis meeting was the installation of Dr. Witherspoon and the farewell of Dr. Jacobi. Dr. Jacobi has been practicing medicine fifty-five years. There is no more respected medicine man in the world today, and there is no man in the profession more loved than this venerable old man. When Dr. Witherspoon took him by the hand and told him that in the time he had known him he had learned to love him, the act and the words contained so much pathos that there were many misty eyes in the audience, and when with one accord the vast audience arose to its feet and extended them both an ovation, there was a feeling of good-will and tenderness toward both of them from every person in the house.

THE CANCER QUESTION.

Dr. Joseph Bloodgood of Baltimore appeared before the surgical section A. M. A. and stated that he was a member from the Clinical Congress of Surgeons to organize a body for the purpose of public education on the prevention of cancer. Dr. Bloodgood stated that they had seen fit to employ Samuel Hopkins Adams and writers of that class to take the matter up in such lay publications as Collier's Weekly and The Ladies' Home Journal. He advised the surgical profession that plans were being perfected to form subsidiary organizations in each state, and he asked the co-operation of every one present when their attention should be called later to the work. This is a move that will no doubt be productive of great good, and it is possibly the only move that will ever accomplish much in this respect. Cancer is a curable disease in many cases if discovered in time, and its early discovery depends on the people being taught its dan-

ger and importance. The medical profession must unitedly take cognizance of this peril and should point out to their clientele at every opportunity the importance of early recognition of its dangers.

NEED OF A BACTERIOLOGICAL SURVEY OF OKLAHOMA WATERS.

Sanitarians and health officers are generally agreed that we should have some systematic way of examining the water used for drinking purposes as to bacteriologic infection and the opinion mostly expressed is that the state should establish laboratories near the centers of population not only for the purpose of making necessary examinations of water, but for the purpose of aiding in every way the quick diagnosis of communicable diseases.

There is no question that such establishments would facilitate the diagnosis of troubles that often are neglected until great damage is done, but that the proximity of them to the general practitioner would cause him to more frequently resort to the finer arts of diagnosis than he now does and no question but what the people generally who must pay the bills either way they are taken care of would benefit in the end to such an extent that the laboratories would be looked on as what they are—necessities.

A LITTLE MATTER OF ECONOMY

In these days, especially ours in Oklahoma, when one hears on every hand the question of the high cost of living and the plans for turning things upside down generally by legislative enactment for the relief of the overtaxed people, it is certainly refreshing to have a concrete example of the ideas of our lawmakers crystallized into law on this particular subject. One wonders on contemplating some of their acts if the old story read in the Bible, and disputed by certain sects—as to the actions of a camel and a needle's eye—may not after all be true. In the interest of economy (which translated means the people) our legislature turned down with a dull thud the utopian proposition to establish a tubercular sanitarium in the state and soon thereafter gravely voted into law an appropriation of ten thousand dollars for the entertainment of a dry farming Congress, whatever that might be. Whatever this kind of a congress is, it must certainly be badly needed. We need money too badly to take care of the tubercular, but allow our dry farmer to suffer—never!

A FURTHER PROPOSITION TO REDUCE THE NUMBER OF MEDICAL COLLEGES

Pennsylvania created a Bureau of Medical Education Licensure for that state in 1911; their report is just out, and it is interesting to note that the total results of the report amount to the same as that deducted by the Carnegie Foundation.

While the bureau reports that the standard of medical education, equipment of colleges, laboratories, and the teaching course is very high,

they nevertheless suggest that there is still room for improvement, and to further this end, they suggest that the colleges themselves are not using all the clinical facilities; many of them do not have a full time corps of the paid instructors; that the colleges have a habit of granting re-examinations in the same year to candidates who have failed at the general examinations of the subjects on which they failed. They strongly urge that as encouraging as the situation is, it can be further improved by a consolidation in some cases and eliminations in others.

In this connection it is also interesting to note that the recent report in the Journal of the A. M. A. with reference to all the medical colleges in the United States, it is shown beyond question that a higher percentage of applicants pass the state board in the states in which they graduate than otherwise,

We are not prepared to say that graduates of any given state are favored over graduates of other states, but the findings of the A. M. A. report certainly seems to indicate that they are.

The question of personal equation should be eliminated, and our medical education should be placed on a high standard plan; just so long as there is rivalry between schools as to who will put the most doctors in the field, we will continue to have men more or less incompetent passed on examinations. The only solution of the problem seems to be to create schools of such power from the standpoint of endowment, equipment, and teaching, that none but men with good basic preparation can get by.

We now have in Oklahoma the beginning of a good medical school; theoretically, it is backed by the state, is part of the State University, and every medical man in the state should support it. If we all stand together, laying aside our personal advantage and jealousies, we should be able to create a school in Oklahoma that will maintain the high plane that is being demanded throughout the civilized world in medical colleges.

PERSONAL AND GENERAL NEWS

Dr. H. D. Shankle, Muskogee, spent the month of May in Chicago doing post-graduate work. Dr. Shankle filled an internship during the time in the Augustana Hospital.

Dr. W. G. Brymer spent several weeks during the spring in Chicago making a special study of the mechanical treatment of the end results of poliomyelitis.

Dr. Harriet B. Jennings, formerly of Muskogee and now in the Indian service, will spend the summer in Elkhart, Indiana.

Dr. F. T. D. Cherry, one of the oldest and most highly respected physicians of Eastern Oklahoma, died at his home in Sallisaw May 26 from an aortic aneurysm. Dr. Cherry was health officer of Sequoyah county from statehood until his death.

Dr. J. O. Hartgraves, formerly of Nelson, has located in Soper.

Mayes County Medical Society held a meeting at Pryor June 4. Papers were read by Drs. W. T. Tilly, Muskogee; E. L. Pearce, Salina; Carl Puckett, Pryor, and Dr. Jackson, Vinita.

Dr. R. A. Workman, of Woodward, recently made a trip from Woodward through Kansas and Missouri to Carrollton. He was accompanied as far as Carrollton by Mrs. Workman and from that point Dr. Workman will go to St. Louis for some post-graduate work.

Garfield county physicians propose to hold a celebration to commemorate their twentieth anniversary on September 19. A committee composed of Drs. M. A. Kelso, S. M. Jenkins, H. B. McKenzie, C. J. Lukens and E. N. McKee will have charge of the arrangements.

Dr. Sydney Hagood, of Durant accompanied by Mrs. Hagood, and the children, recently went to Baltimore where Dr. Hagood will work for two months in Johns Hopkins.

Dr. Augusta I. True of El Reno was recently accorded a mistrial in the Federal Court at El Reno, it being reported that the jury was hopelessly divided. It was charged that Dr. True was guilty of sending letters through the mails soliciting criminal operations.

It is reported that Dr. True conducts a maternity home in El Reno and she claims that the letters were written for the purpose of securing that class of cases, but with no intention to violate the law.

Star Ranch in the Pines Sanatorium, Colorado Springs, has recently entered the field of Oklahoma advertisers. Elsewhere will be noted the advertisement of this institution, which is beautifully situated in the Colorado Hills near Colorado Springs. Oklahoma physicians contemplating sending patients to Colorado will do well to investigate this institution.

Dr. D. W. Griffin of Norman, superintendent of the Oklahoma Sanitarium, attended the meeting of the American Medico-Psychological Association in Buffalo last month. Dr. Griffin also visited many institutions during his absence.

Dr. Melvin Gray of Mountain View, a member of the State Board of Medical Examiners, and Miss Lidia Post of Knoxville, Tenn., were married in Oklahoma City June 4. They will take a trip back to good old Tennessee, after which Dr. Gray will remove to Chickasha where he intends to practice.

Craig County Medical Society held a meeting or clinic at state hospital for the insane, Vinita Tuesday, June 4. There were present Drs. Beard of Gentry, Ark.; Haas, of Sapulpa; Taylor of Chelsea, as out-of-town guests besides the local members.

Gov. Olson Eberhardt of Minnesota brought down the house in his welcoming address when he made a statement something like this: "I am certainly delighted to see you doctors. I can hardly tell you how much I am delighted to see you. It gives me great pleasure to look into the faces of so many honest men. You know I have been watching the legislature for three months."

Dr. A. Holmes of Henryetta was recently appointed city physician of that place.

Dr. Walter L. Capshaw of Norman recently made a trip to New Mexico and Denver. He goes from there to the clinics of New York City.

Dr. McLain Rogers, health officer of Clinton, made his annual report to the city council recently. It became necessary for Dr. Rogers to take exception to a statement of a member of the council that the salary paid a city health officer was money thrown away. Dr. Rogers, in his most able manner, stated that while he was an applicant for re-appointment for another year, he had served the city from a civic, personal and professional pride rather than for the money involved, and that if the council felt as did the member making the remark, they could count him out; the mayor and members of the council present immediately re-appointed Dr. Rogers and highly complimented him on his year's work.

The following physicians from Oklahoma were registered at the Minneapolis meeting of the A. M. A.: Drs. W. A. Ball, Wanette; J. H. Barnes, Enid; W. E. Dicken, Oklahoma City; T. H. Flesher, Edmond; E. S. Lain, Oklahoma City; S. A. Looper, Garber; S. M. Parks, Bartlesville; C. A. Thompson, Muskogee; J. Hutchings White, Muskogee; O. C. Newman, Shattuck; R. W. Pence, Enid; W. H. Rutland, Altus; C. G. Spears, Altus; T. B. Turner, Stigler; James C. Johnston, McAlester; W. T. Tilly, Muskogee.

NEW BOOKS

TEXT-BOOK OF DISEASES OF THE NOSE, THROAT AND EAR.

For the Use of Students and General Practitioners by Francis R. Packard, M. D., Professor of Diseases of the Nose and Throat in the Philadelphia Polyclinic Hospital and College for Graduates in Medicine; Aurist to the Outpatient Department of the Pennsylvania Hospital. Second Edition with 145 Illustrations, Philadelphia and London, J. B. Lippincott Company, Cloth 377 pages, Price \$3.50.

This book is all that the author and publisher claims it to be. It is short, concise, yet complete and up-to-date, not dealing in generalities or theories, but facts and operations as generally accepted and approved of today. It is very suitable for the student and general practitioner who have quite a good deal of such work, and should have a working knowledge of the subjects.

This book should find a ready sale among the class indicated.

WANTED—Nurses to take training in 3-year course. School acceptable to Oklahoma State Board. Pay \$5 per month first year, \$7.50 per month second year, \$10 per month third year. For particulars and prospectus, address Superintendent of Nurses, El Reno Sanitarium, El Reno, Oklahoma.

NEW AND NON-OFFICIAL REMEDIES.

Since publication of New and Non-official Remedies, 1913, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Association for inclusion with "New and Official Remedies," all from Sophian-Hall-Alexander Laboratories, Kansas City, Missouri:

Polyvalent Acne Vaccin. Marketed in packages of six ampoules. (Jour. A. M. A., April 5, 1913, p. 1074.)

Antimeningitis Serum. A polyvalent serum prepared from the blood of horses immunized to the meningococcus of Weichselbaum. (Jour. A. M. A., April 5, 1913, p. 1074.)

Polyvalent B. Coli-Communis Vaccin. Marketed in packages of six ampoules. (Jour. A. M. A., April 5, 1913, p. 1074.)

Refined and Concentrated Diphtheria Antitoxin (Antidiphtheric Globulin.) Put up in a syringe container. (April 5, 1913, p. 1074.)

Polyvalent Gonococcus Vaccin. Marketed in packages of six ampoules. (Jour. A. M. A., April 5, 1913, p. 1074.)

Polyvalent Meningococcus Vaccin. Marketed in packages of three ampoules. (Jour. A. M. A., April 5, 1913, p. 1074.)

Polyvalent Pneumococcus Vaccin. Marketed in packages of six ampoules. (Jour. A. M. A., April 5, 1913, p. 1074.)

Polyvalent Pyocyanus Vaccin. Marketed in packages of six ampoules. (Jour. A. M. A., April 5, 1913, p. 1074.)

Polyvalent Staphylococcus Vaccin. Marketed in packages of six ampoules. (Jour. A. M. A., April 5, 1913, p. 1074.)

Polyvalent Staphylo-Acne Vaccin. Marketed in packages of six ampoules. (Jour. A. M. A., April 5, 1913, p. 1074.)

Polyvalent Streptococcus Vaccin. Marketed in packages of six ampoules. (Jour. A. M. A., April 5, 1913, p. 1074.)

Polyvalent Typhoid Vaccin. Marketed in packages of three ampoules. (Jour. A. M. A., April 5, 1913, p. 1074.)

Antirabic Vaccine. The Antirabic Vaccine, formerly manufactured by the American Biologic Company, Kansas City Mo. (See New and Non-Official Biologic Laboratories, Kansas City, Mo. (Jour. A. M. A. April 5, 1913, p. 1074.)

Antigonococcic Serum. A highly immune polyvalent serum, prepared by immunizing horses against many strains of gonococci. (Jour. A. M. A., April 19, 1913, p. 1227.)

Antistreptococcus Serum. A polyvalent serum obtained by immunizing horses with increasing doses of streptococci extract and subsequently with live cultures. (Jour. A. M. A., April 19, 1913, p. 1227.)

Normal Horse Serum. The serum of normal horse blood obtained in a sterile manner and passed through a Berkefield filter. (Jour. A. M. A., April 19, 1913, p. 1227.)

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Next Meeting—Guthrie, Ione Hotel, July 8-10, 1913.

Address all communications to the Secretary, Dr. J. W. Duke.

THE JOURNAL

of the



The seal is circular with a five-pointed star in the center. Inside the star is a smaller star with a shield on it. The words "GREAT SEAL OF THE STATE OF OKLAHOMA" are written around the inner circle, and "1907" is at the bottom.

Oklahoma State Medical Association.

Vol. VI

MUSKOGEE, OKLAHOMA, AUGUST, 1913

No. 3

DR. CLAUDE A. THOMPSON, EDITOR-IN-CHIEF.

MILK AS A FOOD FOR INFANTS.

J. T. Martin, Oklahoma City, Oklahoma.

The study of the chemistry of milk reveals the advantages and the difficulties of this food as the nutriment of infants. The *Annals of Medical Practice* gives the following analysis: Water, 85%; solids, 15%; Carbohydrates (i. e. lactose), 38%; fats, 33%; proteids, 25%; mineral salts, 4%, consisting of phosphates and chlorides of sodium, potassium and calcium. There are in milk many other substances; for instance, bacteria which sours it, bacteria which ripens cream and cheese, enzymes, colloidal substances, milk cells and serum.

The carbohydrate element is lactose or milk sugar. The fats are similar to those of human milk save that the globules are smaller in the latter. The proteid in cows' milk consists of casein and lactalbumin in the ratio of five to one and is readily coagulable by acid and by rennin. In woman's milk the proportion is one to one and it is not so readily coagulable by either acid or rennin. In asses' milk the ratio between the two proteids is in the proportion of one to three and is the least coagulable by either acid or rennin. Casein is an irreversible or coagulable, unstable colloid, while lactalbumin is a reversible or stable colloid. Colloids are ultra-microscope motile bodies that protect the proteids. Alexander and Bulowa claim that bald chemical analysis without considering the principle of colloidal protection is an insufficient criterion on which to base an opinion as to the digestibility or availability of milk for food.

Chemical Properties. 1. Freshly drawn milk possesses a bactericidal action to some micro-organisms and an inhibitory one to others.

2. This activity is destroyed at 68° C., is materially injured at 55° C. This bacterial inhibitory action varies with individual cows and disappears with age of milk.

3. Coagulation and acidity of cows' milk do not depend absolutely on the bacterial contents. Natural properties of milk soon overshadow the metabolic products of bacteria.

4. Sterile cow's milk is acid to phenolphthalein and increases very slowly in acidity independently of bacterial metabolism, due probably to the destruction of colostrum cells.

Ferments. During recent years Warfield has identified a peptid splitting ferment in milk and which is destroyed at 75° C. Tummeliff from late experiments concludes that normal human milk is especially high in opsonins from streptococci, staphylococci and tubercule bacillus.

Cells. Milk cells vary in number from 100,000 to 10,000,000 per cubic centimeter. These cells are not leucocytes of the blood stream, having different staining reaction, containing no polymorphynuclears, are non-phagocytic and non-ameboid. Hewlitt, Villar and Revis conclude that they are tissue cells.

Lacti-Serum. (Blondel). Milk serum ferments are similar to animal extracts and contain oxydases. Injections of milk serum lowers blood pressure of the arteries and capillaries. Blondel calls this regularization. He has used milk serum therapeutically in puerperal infections, pneumonia, typhoid and arterial hypotension of arterial sclerosis. Thomsen of Copenhagen found the Wasserman more positive in milk serum than in blood serum of syphilitic women.

With this brief summary of the chemistry of milk we will proceed to the consideration of milk as a food for infants. It is universally admitted that next to breast milk, modified cow's milk is the best available food. That the giving of this is beset with difficulties the school of experience amply teaches. Those that have the opportunity and privilege of milk laboratories find in it a relief for many of their difficulties. We who are not so blessed refer to the complicated tables whose labyrinthian details require trained skill to follow. Of late I have been using a method that enables me more closely to approximate laboratory methods of feeding and at the same time is simple.

From a quart bottle of herd (4%) milk:

1. Remove the upper two ounces for table use.
2. Upper 12 ounces gives 7% milk.
 Upper 16 ounces gives 6% milk.
 Upper 20 ounces gives 5% milk.
 Upper 24 ounces gives 4% milk.
 Whole milk gives 3% milk.
 Remove two ounces, remainder is 2% milk.
 Remove two more ounces, remainder is 1% milk.

This table is easily remembered, as each lower per cent simply adds four ounces of milk taken. When lower per cent than 3% is wanted, remove two ounces of top for each lower per cent. In making a 20-ounce mixture, every ounce of 7% milk contains 35% fat and each lower per cent milk adds .05% less. Each ounce of milk in any of above table contains .175% proteid and .225% of carbohydrate. Adding 1½ tablespoonfuls of lactose to twenty ounce mixture increases the carbohydrate 1.75%. We remove the upper two ounces because the bacteria rise with

the cream and these two ounces contain nearly one-half of the bacterial content of the quart bottle.

To illustrate the use of the table, suppose for a six-months-old baby we desire a milk of 3.5% fat, 7% sugar, 1.75% proteid. Ten ounces of seven per cent milk gives the required amounts when the milk sugar is added. If we wish to increase the proteid to 2.10% and maintain the fats as present, viz., 3.50%. Dropping one in the table, it is readily seen that 12 ounces of 6% milk gives us the required formula. Percentage milk is simply applied dietetic chemistry of milk and is far from the most important element in successful feeding.

Fat globules of cow's milk are larger but similar to those of woman's milk, hence disturbances due to fats are quantitative rather than qualitative. If undigested fat appears in the stool of a bottle-fed baby, the quantity of fat may be readily reduced. On account of the larger globules, the fat of cow's milk is less absorbable than that of a woman. Wentworth found in the feces of babies fed upon cow's milk fifty per cent more fat than in those fed on mother's milk of same fat per cent.

Sugar, the carbo-hydrate element in milk, causes many if not most of the disturbances of bottle feeding. Neff attributes to sugar indigestion the symptoms of coma, loss in weight, glycosuria, albuminuria, diarrhoea of green stools, leucocytosis of 25,000. Finkelstein of Berlin and eiweiss-milch fame says: "Stop sugar and many fatty diarrhoeas disappear." Sugar too is easily controlled in the intake.

Proteids. According to Holt and his followers, this is the chief disturber of bottle feeding. Finkelstein, Abt and others now claim less disturbance from the proteid than from the other elements. It is certain that casein forms curds that tend to increase in size by agglutination. Hard, tough curds are not only difficult to digest, but are a source of irritation. We may overcome this tendency of the unstable colloids by boiling or by the addition of chemicals. Boiled milk in the test tube or in the stomach does not form the tough, hard curd that raw milk does. Lime water is added to make the milk alkaline and to break up the curd. It does the latter to a slight extent but, due to the excessive stimulant action on the secretion of hydrochloric acid in the stomach, it fails in the former object as affirmed by Clark in the *Journal of the Medical Sciences*. Sodium citrate solution added to the milk accomplishes both of these objects, viz., breaks up the curd and by its action in the stomach reduces the acidity. With Dr. James Clemens of St. Louis, I believe this to be more important than exact percentages.

The subject of proteids must not be closed without discussing eiweiss milch of Finkelstein. This albumen milk, as it is called, is prepared by coagulating one liter of milk with liquid rennin for thirty minutes at 42° C. Put the whole mass in a linen bag and let drip one hour. Stir the coagulated casein in one-half liter of water and work through a hair sieve twice. Stir in one-half liter of buttermilk. The end product, eiweiss milch, contains albumen 3%, fat 2.5%, sugar 1.5%, ash .5 per cent. This

albumen milk is well tolerated in many cases of indigestion, especially of the sugar type. Herman claims that after a lengthy trial of nutritional disturbances of infants albumen milk showed twice the rate of improvement compared to other mixtures.

Here I wish to note that the pediatricians of Europe seem to have less difficulty with the proteid element than we do here in America. But in Europe the milk used in infant feeding is usually boiled and records of institutions not boiling the milk show the same proteid indigestion that bothers us. Boiling milk, like adding sodium citrate, breaks the tendency of casein to form large, hard curds. Eiweiss milk with the curd mechanically broken, has a high albumin content that is easily handled. Finkelstein says his eiweiss milk is not for healthy babies.

Another disturbing element in the feeding of cow's milk is the salts of the alkalis and alkaline earths. The inability to handle mineral salts is marked in infancy; 34% of these products are excreted unchanged. Koplik attributes a great deal of our difficulties to these elements. Neff claims that 100gm. of sodium chloride solution will cause a temperature of 104° F. in four hours.

Improper or bad milk is a constant danger in bottle feeding. Bad milk may come from diseased cows, unsanitary stables, poor methods of preservation, or faulty manner of distribution. To overcome these dangers some districts have yearly inspection of herds by competent veterinarians, tuberculin test, rigid inspection of methods of preservation and distribution. To overcome errors in these sanitary measures sterilization, pasteurization and adding of preservatives are used. Finkelstein, Laid-Clayton, Vincent and the majority of pediatricians consider raw milk far better than that which has been sterilized or pasteurized, provided we can be reasonably assured of its cleanliness and purity. Pasteurization by the increase later of putrefactive bacteria or by other causes, is less valuable for feeding to babies.

The lack of reliable raw milk frequently compels us to adopt artificial means to render it serviceable for feeding. Pasteurization is the usual process. Of the commercial pasteurizers the holding type meets with the most approval. In this method the milk is rapidly heated in the heater and then passed to the holder, where it is held at a high but reducing temperature. It takes seven to ten minutes of preparatory steaming to make ready for the milk, and this preparatory steaming must be repeated at each interruption of the process if efficiency is to be obtained. Shorer's investigations show that the automatic heaters vary 21° F from the intended temperature and that the top and bottom of the holder vary over 13° F. Even with this inefficient process, it takes a Chicago dairy three hours and fifty minutes to pasteurize the daily output. The investigations at Chicago show the unreliability of commercial pasteurizing processes.

Clean milk—milk obtained from healthy cows in sanitary barns by clean milkers, milk that is properly preserved by refrigeration and properly distributed—is the ideal to which we all look with longing. That it can be accomplished

with monetary profit has been proven. One dairy in Wisconsin, according to Hoard's Dairyman, that is a hundred miles from the Chicago market, delivers to the dealers in that city at the price of six cents per quart milk which shows a bacterial count of 1,000 to 2,000 per cubic centimeter, and makes a fair profit thereon. In the study of this subject by the Chamber of Commerce of Rochester, N. Y., J. R. Williams demonstrated the practicability of obtaining clean milk at less than the present price of market milk.

Certified milk is a step in the right direction. Certified milk may be defined as the product of dairies operated under a Medical Milk Commission, which body is appointed for voluntary service by a Medical Society. The milk is required to fulfill standards of quality, purity, and safety to insure its adaptability for chemical purposes and for the feeding of infants. These requirements are enforced by the following regulations:

1. Milk must be fresh when delivered, under 24 hours old.
2. Be whole milk and raw milk.
3. Unchanged by heat or cold. Kept at 50° F.
4. Contain 12% solids, 3.5 to 5% fats.
5. Absence of foreign material.
6. Have the lowest possible bacterial count, least amount of dust, best dairy hygiene.
7. Not contain over 10,000 bacteria per cc.
8. Milked by medically examined employees.
9. From herds that have been inspected by competent veterinarians.
10. Certified milk attempts to solve the milk problem as regards the herd, sanitary condition of the milk sheds and buildings, as regards preservation and distribution of the milk. This is one of the voluntary public services well within the scope of every county medical society.

In resume will say:

1. Clean, sterile, raw milk of good quality is the ideal.
2. Clean milk can be obtained at moderate cost.
3. Certified milk allows those who desire to obtain an improved milk.
4. If milk is unclean it is dangerous. Get other milk; if this is impossible, boil it.
5. Commercial pasteurization is not reliable. Obtain the best milk you can, and this is the best available artificial food for infants. Proceed to adapt it to the individual, bearing in mind that for infants:
 1. Carbo-hydrates are a great source of trouble.
 2. Mineral salts may be a source of difficulty.
 3. Break the large curd-forming tendencies of casein by sodium citrate or boiling.

A PLEA FOR THE ROUTINE EXAMINATION OF THE BLOOD FOR THE MALARIAL PARASITE.

L. A. Mitchell, M. D., Frederick, Oklahoma.

In a paper of this kind there is nothing to be gained by delving into the voluminous literature of malaria. Nor is there any need to expect fame by writing on such a commonplace subject. Rather let us be content to give the credit to Laveran, Manson and our own Craig for their scientific study of the disease. The combat waged for the past ten years on the Isthmus of Panama against the mosquito, has made Col. Gorgas a man of world-wide prominence. He has converted a pest hole into a health resort and the successful termination of the canal is a triumph of malarial prophylaxis rather than a great engineering feat.

It is the purpose of this paper to show the great prevalence of malaria in Oklahoma, though obscure it may be at times, and to call your attention to the necessity of looking at the red corpuscles before diagnosing a serious disease. The proper diagnosis of malaria is neglected more to-day by the general practitioner than any other one thing which comes to his notice. The old adage that "familiarity breeds contempt," is as true with reference to medicine as it is in any other branch of human endeavor. Malaria has been a household word with most of us since childhood, and in the Southern homes quinine is considered as essential to housekeeping as table salt. This familiarity has led us to regard malaria as an insignificant ailment closely related to sunburn, whose treatment is beneath the dignity of a doctor, and thus belongs to the housewife. The treatment of malaria does belong to the housewife so long as the attack is typical. She can then make a diagnosis, and the treatment is universally known. It does not take a doctor to diagnose periodic chills, fever and sweats as malaria, but experience leads me to say that not one-half the cases of malaria manifest themselves in this manner. Only a small per cent have chills, and many cases do not have fever. Thus it becomes our duty as doctors to look beyond the clinical to the microscopical findings if we are to rise above the diagnostic ability of the good housewife. If all cases were typical, we would never see a case of malaria, for then its diagnosis and treatment would fall to the housewife. It is just as reasonable to wait for an intestinal hemorrhage before diagnosing typhoid fever as it is to wait for a chill before diagnosing malaria. As a race it is our custom to pass by the common things. As doctors we are no exception to this rule, for, first of all, we are human beings. If this paper shall stimulate those present to study the blood of their patients and shall succeed in convincing them that malaria is a very common disease in Oklahoma, it shall have fulfilled its mission.

The evolution of the whole question of malaria forms one of the brightest pages on medical history. The word, which means literally "bad air," shows the original idea of its etiology. It is interesting to quote from no less an authority than Strumpell, who says in the second edition of his Text Book on Medicine, written in 1885, that "Numerous

observations only serve to confirm the statement that the soil is the true home and cradle of the malarial poison, and that the virus, escaping thence into the lower strata of the atmosphere, may be taken into the system, probably during inspiration. The poison does not extend far above the surface of the ground and during the night it seems to exist in greater intensity than during the day."

We see how accurate was his observation, but it is well known among the laity of today just how much he missed the true cause. And yet there are those practicing today who believe that malaria may be contracted by inhaling "night air" from stagnant waters. Since the discovery of Laveran, it has been proved over and over that malaria can be transmitted only by the bite of an infected female *Anopheles* mosquito.

The old idea that chill plus fever equals malaria and that malaria is to be diagnosed only when these symptoms are present, has given way to the positive method of diagnosis afforded in a blood examination. It is now known that many conditions of lassitude, accompanied by a sub-normal temperature, are malarial in origin, and will certainly clear up under appropriate antimalarial treatment.

The writer on this subject has an advantage in that there are more things definitely known about it than about almost any other disease known to mankind. For instance, the cause is definitely known; the diagnosis can be positively made; and a cure can be effected in every case when proper treatment is instituted. As a modification of the statement that it positively can be cured under proper conditions, the so-called malarial Hemoglobinuria is excepted, its etiology as yet being in doubt. We further know that a person who is infected with the asexual type of the parasite is a source of danger in a community previously supposed to be free from malaria. These asexual types need only to pass through the mosquito as an intermediate host to cause a spread to other people. It is peculiar how that malaria manifests itself often after slight illness or injury. It is a common cause of post-operative fever even after minor operations. A case report will best illustrate this: A primipara was delivered with forceps, and for five days seemed to be doing well. She at this time developed a slight but rather constant headache, accompanied by a temperature ranging from normal to 101 degrees. Anemia was rather marked. There was no abnormality of the lochia, no chills, but the headache grew worse. A blood examination revealed a heavy infection of malaria, and all her symptoms were relieved by the use of quinine.

However there are still mysteries connected with malaria. The exact cause of a recurrence after several months is not definitely known. We know that the natural resistance of a patient will hold a severe infection in check for a long time, and that acute cases will recover without proper treatment. It has been proved that these are the cases which recur. In many cases improper treatment consists of giving quinine in the dry form. In the tropics it is always given in a solution made by aromatic sulphuric acid. And you will find many cases which this will not control, but

there are few if any cases which will not yield to quinine given hypodermically. Some patients seem to exhibit a tolerance to quinine given by the mouth.

A case report will best illustrate this point: A young man, born and reared in Southwest Missouri, who worked in a bank, was attacked with a febrile disease of some weeks duration. It was first called la grippe, but as his condition did not clear up under appropriate treatment, a suspicion of pulmonary tuberculosis was aroused. He was sent to Southern Texas for six months, but found no relief. He was then told to seek a better climate, and this time he spent six months in Montana and the Panhandle. He again returned to Missouri, but his family physician ordered him to leave again. He then came to Southwest Oklahoma, and took up his residence on a farm. Let it be said that during all this time he never showed one definite sign of consumption, his only symptoms being irregular fever, lassitude and inability to take on flesh. His blood was finally examined, a task requiring about five minutes, and he was found to be suffering from malaria. He was immediately put on quinine in solution and while he would recover from the acute condition, he would have recurrences from time to time in spite of heroic treatment. He was finally put on 10 grains of quinine hydrochloride and urea hypodermically daily, and his chances for complete recovery seem good, he being under observation at this time. Now, I believe this patient has had nothing but malaria all these years.

One of the most remarkable cases of malaria I have ever seen in any climate occurred in Southwest Oklahoma. A farmer of 49 years, born in Kansas, lived for a time in Texas, but came to Oklahoma at the opening of the Comanche country. He had always been in good health. Last fall he began to lose his accustomed good health, his first symptom being numbness of the upper extremities. He later developed irregular fever, persistent vomiting, loss of appetite and weight, difficult breathing, etc. He was sent to Kansas for his health, and finding no relief he went to Claremore, Okla., to be cured of his "stomach trouble." This gave no relief, however, and he came home to die. When first seen he had marked dyspnoea, anemia bordering on cachexia, vomiting, irregular fevers and night-sweats. The fever was of such slight degree that both the patient and his family denied that he had ever had any. A record, however, showed the presence of fever. The liver and spleen were greatly enlarged. A tentative diagnosis of liver abscess was made, and as he refused surgical intervention, a prognosis of much gravity was made. But while waiting for him to die a blood examination was made and a severe infection of malaria was discovered. He was put on quinine and arsenic, and at this time, three months later, he has gained 30 pounds and is able to be about his accustomed business.

Numerous other cases might be reported, but these will suffice to prove to you that malaria does exist in various and at times obscure forms. It has been found closely assimilating cholecystitis, appendicitis, typhoid

fever where fever was present, but the most trouble is had in making a diagnosis where no fever is present. It has been found in children of six months who had passed through part of a single summer, and in patients 75 years old who never lived further south than Oklahoma.

Malaria is a disease which comes to every general practitioner in the state several times a year. It is thus an important subject for us all to consider. So important a question is malaria and its prophylaxis, that no less an organization than the Southern Medical Association has a commission to investigate it. This commission was able to ascertain that malaria is present in every one of the fifteen southern states. The morbidity varies from 25 to 800 cases per 1000 population, and the average mortality is 1%. The following statistics from this commission for the state of Alabama will tend to show what an economical question malaria presents. There occurred 122,200 cases of malaria with a death rate of 1% of the cases; thus there were 1222 deaths. Assuming that each case entailed an expense of ten dollars for professional service and medicine, the morbidity alone in the state of Alabama for one year amounted to one and one-third million dollars. Placing a monetary value of \$2000 on each life lost, the 1222 deaths from malaria added 2½ million dollars to the cost of malaria. Thus malaria costs Alabama nearly \$4,000,000 annually. Those of us who are practicing along the rivers and in the southern side of Oklahoma have the same conditions to meet as obtain in Alabama. I doubt if there is a county in this state which will not show many infections at some time during the summer or fall.

The point which I want to urge above all others is the necessity of routine blood examinations to diagnose malaria. You can't cure it unless you treat it, and you can't treat it unless you suspect it. And there are many cases which you will not suspect unless you make a blood examination. We have been going off after new fads and fancies, after rare and new diseases, and have got away from our most common enemy. Why, I am laughed at down in my town when I make a diagnosis of malaria with the microscope, when I actually see the parasite.

In conclusion I wish to make the following resume:

1. Malaria is present in Oklahoma.
2. It often is obscure—often no fever.
3. It presents a big economical question.
4. We can diagnose it positively.
5. Capsules of quinine are often useless.
6. We can cure it.

In view of these facts and in the light of the 20th century, with its microscopes and other aids to diagnose, I maintain that it is almost criminal not to allow a patient five minutes for a blood examination.

DISCUSSION.

The Chairman: When I came to Oklahoma three years ago I had heard a whole lot about malaria. I have been practicing in Oklahoma City

and did not have very many cases up, especially up under the microscope, and I actually say I have not seen a single case. I have not a big private practice, but I have a lot of laboratory specimens. I have never seen a case of malaria. I have never seen anything that fits the malaria blood. I do not want to open these discussions, but I know that there are men outside of Oklahoma City practicing in the southern and southwest part of the state who have conscientiously used the microscope and they have malaria cases, and there are others practicing in other parts of the state who do not use the microscope and they have malaria very frequently. I would like to have the opinion of the doctors on this paper.

Dr. Bradford: I want to compliment the doctor on the paper. As we all know, who have practiced medicine in Oklahoma for a number of years, about the only kind of malaria we do have are those obscure cases, and ones that recur. I often hear the remark from a doctor that he has not treated a case for a year or two, and that it was true they did not have the typical cases any more. I believe in a great many cases if blood examination was made we would find more malaria at this time. I do not know why Dr. Fishman has not run on to any malaria. I guess it just happened so, for we are no farther south in Shawnee than Oklahoma City and we have cases of malaria over there without any microscope. However, I want to say that a routine blood examination would be all right, because it would take but a short time to make it and it might save a great deal of trouble for some patients, because we know that some other disease or a surgical operation will bring about malaria again.

Dr. Johnstone, Lawton: Six or seven years ago, I judge, I had two chills, and I took some medicine a doctor gave me. A short while after I began going to school I began feeling bad. It seemed to me I had no appetite at all, and I had a headache right along the back of my head—just something terrible. It seemed as if my head would burst open. I did not have a paroxysm until in February, and when I did it was a dandy. I would not go through it again for a twenty dollar bill. This proved to be the plasmodium form, and I want to go ahead and state that I went to several of the best physicians in the city and they prescribed for me so I could take a big dosage of quinine. They did not succeed for awhile.

I remember a case in St. Louis in a hospital. I went to examine the patient's blood and the doctor there laughed at me. He said: "What are you going to examine the blood for?" I told him I was looking for malaria, and the next evening I showed him the prettiest forms of malaria I ever looked at. Cases of malaria are many times covered up.

Dr. L. A. Reily, Oklahoma City: I am very well pleased with the doctor's reading a paper on this line. It shows a scientific tendency that is good. The only way you can pick up a lot of conditions otherwise overlooked is by the routine examination. The northern and the southern doctors have such varied opinions of malaria that a thesis written by a

doctor from either place would hardly coincide with that of the other man from the other end of the country. We do not have many open cases of malaria in Oklahoma any more. I have been here twelve years and we had more of it at first than we have now. We do not have the great number of chills and fever we had at first in this country. I think the doctor was right in placing the atypical form as being the great source of the diagnostic downfall of us physicians. The only way to get at some of these cases is by an examination of the blood. When we have many cases of malaria they cannot be diagnosed from subjective symptoms, and the only way to make an absolute differential examination is with the microscope. I had one case that had had a temperature of 99° or 100° for eight weeks and had been subjected to a rigorous course of quinine and with no help. My examination found a condition of the lungs which absolutely explained the temperature. I think we ought to be more careful in our examinations.

Dr. Hume, Anadarko: A lady in our town spent three years in the Philippines. She had been back two years and came back with chronic malaria. The blood examination at first revealed plasmodium malaria, but she still continued to have attacks of intermittant fever. This summer her physician told me she had the fever and he recently examined the blood and failed to find the plasmodium, and at the same time the fever is controlled in a few days by doses of quinine. At present he tells me that he is unable to find anything, but still she seems to have the fever. She is very well in other ways.

Dr. Sanger: I would like to report a case I had recently adjacent to Oklahoma City. Two physicians looked at this case with me and hooted the idea of malaria. His blood was examined and malaria was reported not to be found. He was diagnosed as pernicious anemia. I suspected malaria when he first came to see me. He complained of numbness of his hands and feet and shortness of breath. Up to this time he had no fever. On the last trip to my office I met him at the head of the stairs as I was going down, and he said: "This is the last time I am coming to see you." I told him he was mistaken. When I came back from the drug store I found him stretched out on my table; his pulse, I think, about thirty or forty a minute and he looked like a patient after he had been dead about twenty-four hours. I had sent him a couple of times to see two other prominent physicians I knew. I did not want him to die on the table and I went to the telephone and called up one of these men and had him to come see the patient. He said the man would die in a few days. "He has got pernicious anemia," he said. They accompanied the man to the hospital and confined him to bed. We put him on pernicious anemia treatment, which was practically nil. At my suggestion, at last, they put the man on quinine hypodermics. He then had about one-half or one degree of fever. They said anything would not do him any harm anyway. So we gave him the injections and that man apparently is as well today as he ever was in his life. I just wanted to report the case.

Dr. Mitchell (closing): As the case reported by the doctor, I saw a case that was as interesting to me as the one he speaks of. It was diagnosed typhoid at first and then went to pernicious anemia. It was cured by hypodermic injections of quinine.

Whenever the diagnosis of the case is not evident or certain, if you would make the examination of the blood, you will be surprised at the number of cases you would call something else—neuralgia or sick headache and so on. You would be surprised at the number of cases that would be cured by the injection of quinine. This man I mentioned, his condition was due to an abscess of the liver and had been seen by several doctors. He took about 600 grains of quinine solution, and still had symptoms of malaria. I finally put him on the injections and he gained thirty pounds under the quinine solution and yet the parasites were still present, and when I put him on the hypodermic the condition cleared up.

The Chairman: I must apologize for saying I had not seen a case of malaria in Oklahoma, for I did treat a case, now that I think of it, I believe was malaria. This case came from out of the city and had chills. The blood examination several times showed no organisms. The count showed a large per cent of leukocytes, and in reading on the subject I found that a large number of leukocytes is indicative of malaria whether or not organisms are found.

DEFECTS WITHIN THE LOWER SPINAL CANAL.

Horace Reed, M. D., Oklahoma City.

PART I.

ACQUIRED LESIONS.

Anatomically, the spinal cord ends at about the upper level of the second lumbar vertebra. Surgically, its lower limit is higher—at a somewhat variable point corresponding to the origin of the fibers of the coccygeal nerve. The part included between these points is the conus terminalis. Proceeding from the apex of the conus is a slender filament of gray substance, filum terminalis, which is enclosed in a tube of pia mater.

The cauda equina is a collection of nerve roots which have their origin in the lower cord and conus. From these roots the lumbar sacral nerves are given off. The cauda is enclosed in a tube of dura mater which extends to the second, or, sometimes, to the third sacral segment, where it ends in a pouch. The filum terminalis and coccygeal nerves perforate this pouch at its lowest point and proceed on downward. The arachnoid is continued downward from the conus inside the dural sac, holding the cauda into a compact bundle.

The one structure which we must consider more minutely is the pia mater. It is intimately adherent to the cord and sends a process into the

anterior fissure. The axones, both afferent and efferent, are furnished with a sheath from the pia, external to the cord. This sheath is termed the primitive sheath, or neurilemma, and without it an axone is incapable of regeneration. In some respects the neurilemma of the peripheral nerves resembles the periostum of the long bones. This is particularly striking when considering the parts those two structures play in regeneration. Gray terms the pia mater the neurilemma of the cord. Such a designation is entirely misleading since the pia exercises no power in cord regeneration.

We need not go into the minute anatomy of the cord here. It is sufficient to state that the fibres which make up the tracts of the cord are aneurilemmic and are incapable of regeneration. This statement may be called into question if we superficially consider the opinions of certain authors. Barker says: "Regeneration of the severed nerve fibres within the spinal cord and brain, is, unfortunately, very much less complete than in peripheral nerves."

From this remark it might be inferred that Barker considers that it can take place. Marinesco at first denied that histologic regeneration of divided axones within the cord could take place, but later confessed that his former position was not quite correct. Strosbe, after injuring the spinal cord and some of the roots, observed a few fibres penetrating the scar tissue at the point of injury. Bickeles noted similar phenomena in man, but remarked that the penetration was very imperfect.

Murphy, in 1907, after an exhaustive consideration of the literature of spinal cord regeneration, concludes that: "Regeneration of the white columns or gray matter of the cord after destruction or division has never been demonstrated experimentally nor authoritatively observed clinically." If, then, we accept these apparent facts as final, we must conclude that there is and will be no surgery of the spinal cord proper except that its aim be prophylactic.

What we have said relative to regeneration of the spinal cord in no way applies to the cauda. The only resemblance which the latter bears to the cord proper is the fact that it is situated in the spinal canal and has a dural covering. The fibres which collectively form the cauda are medullated axones with neurilemmic sheaths. They are, in other words, peripheral nerves situated intra-durally, and as such are capable of regeneration under favorable conditions. A transverse lesion of the cauda, when complete, results immediately in total paralysis—motor, sensory and reflex—of the parts supplied by the nerves which have their exit below the lesion. If co-aptation of the cut ends be promptly and accurately made, regeneration may result. The more proximal parts will have their functions restored first. Likewise the parts supplied by the sacral and coccygeal nerves will be the last in regaining innervation. The following case is illustrative:

A robust young man, while sitting on the floor of a mine, was struck on the left shoulder by about a ton of falling slate. His trunk was hurled violently forward and toward the right by the glancing blow.

Complete motor paralysis of the lower extremity was the immediate result. When I first saw him, two days later, his condition was as follows: Complete motor paralysis of lower extremities; loss of control of sphincter, resulting in retention of urine and incontinence of feces; complete sensory paralysis of left leg and thigh, except on the anterior and inner aspect of the latter; sensory disturbance of the right limb, except for a portion of the thigh.

The region of the back over the first, second and third lumbar vertebrae was swollen and tender on pressure, and just to the right of the median line and opposite the second lumbar segment, a slight bony prominence could be felt. X-Ray showed nothing positive, except that there was no disturbance of the vertebral line.

Six weeks later there was complete restoration of sensation in all the affected parts; considerable restoration of motor function of right limb, and he was able to work the toes of the left foot. A stubborn cystitis had developed. Seven months later he was able to walk with the aid of a cane. At this time a suprapubic cystotomy was performed for vesical stone.

He left the hospital at about the end of ten months from the time he entered, in good condition, except that he had not regained vesical and sphincteric control.

The diagnosis of a lesion following injury of the cord cannot easily be mistaken. The matter of the exact location is not quite so readily determined. If the cord is severed transversely, only the highest point of the injury can be located. This gives no clue as to how extensive the destruction below this point may be. The X-Ray will only show the present relation of bones and fragments, and often will give no indication of the location of the injury. A dislocation of a vertebra of sufficient extent to sever the cord or cauda, may take place which will subsequently be spontaneously reduced and the radiograph will reveal no discrepancy.

When a spinal fracture is limited to a single vertebral body, the radiograph will be of value, and particularly so when there is no dislocation or other external signs of the extent of injury.

A workman fell from a scaffold, a distance of about 50 feet, striking on his buttocks. There was immediate complete paralysis of lower extremities. He was unconscious for several hours, and was more or less dazed for several days following. There was no external signs of fracture or displacement. An X-Ray taken before he had sufficiently recovered to answer questions with intelligence, revealed a crushing fracture of the second lumbar vertebra.

The subsequent history and present condition of the patient substantiated the diagnosis of destruction of the cauda at this level, with the probable intervention of fragments of bone or tissue between the severed ends.

SURGERY.

The indication for laminectomy is the reasonable belief that conditions necessary for regeneration of the cauda are not favorable without the operation. The success of the operation will depend largely upon the promptness with which it is done following the injury; the carefulness of coaptation of the severed ends, and finally, upon the rigidity with which rest is maintained afterward. It is essential also that the patient be kept in the recumbent position, and, preferably, with the trunk and pelvis incased in a plaster dressing for a period varying from three to six weeks.

The contraindications are:

1st. The difficulties of the operation—the danger of doing harm to uninjured parts.

2nd. Extensive destruction of the cauda, to the extent that the ends could not be accurately coaptated without undue tension.

3rd. Diagnostic difficulties.

Exploratory laminectomy cannot be made with the same degree of impunity as in most other regions of the body.

A contusion, or, we believe, even a concussion of the cord may closely resemble a transverse lesion.

A young farmer was thrown from the seat of a harrow and fell upon the buttocks. Motor paralysis of the lower extremities was complete immediately following the accident, and sensation over the corresponding area was considerably disturbed. Vesical and sphincteric control lost. Two days later he was brought to the hospital. The symptoms were very little changed from what they had been at first. There were no signs of fracture nor of dislocation of spine.

Patient was put to bed and rest enforced. Three weeks later all sensory disturbance had disappeared and motor control was sufficiently regained so that he could walk with the aid of a cane. At this time he left the hospital. Three months from the time he received the injury he reported that recovery was complete.

The operation, which in my opinion is always indicated in traumatic lesions of the cord that are sufficiently extensive to produce paralysis, is permanent cystostomy.

In my experience with these lesions infection of the bladder has invariably resulted. The factors which contribute to this are various and obvious. In all cases of permanent paralysis, with the lesion in the terminal cord, the natural end to be anticipated is death from nephritis. It is argued by some that the nephritis results from ascending infection; by others that it is hematogenous. We will not go into the merits of either theory. Our contention is that if the bladder is properly drained infection of the kidneys is not so apt to take place secondarily, and at the same time the patient's comfort is materially increased. The operation should be performed before infection has taken place, therefore, within a few days following the injury. No serious difficulty should be encountered in closing the fistula should regeneration be complete.

PART II. CONGENITAL LESIONS.

The coalescence of the neural canal begins in the middle portion. From this beginning it proceeds forward first, and finally, backward. Defects of closure occur more regularly in the parts where coalescence normally takes place latest. Thus we find spina bifida more often in the lumbo-sacral, and next to this, the cervical regions.

The purposes of this paper do not call for a detailed classification of these defects, and we will limit our discussion to those occurring below the conus.

We must recall the fact that in early fetal life the cord proper extends to the lower end of the sacrum, whereas, in adult life, it has retracted to about the level of the second lumbar segment. With retraction of the cord goes the pia mater, except for the filum terminalis. The filum is what might be termed a fetal remain and is of no clinical significance.

A meningocele situated between the conus and the second sacral segment could only contain the dural and arachnoidal membranes in its walls. The nerve elements of a myelocele of the same region could only be neurilemmic medullated nerve fibres. These facts are to be borne in mind in attempted surgery of these defects.

A myelocele or a meningocele does not exist after birth below the termination of the cauda, and, therefore, below the second sacral segment. With retraction of the cord and its membranes, there is left the lower sacral and coccygeal roots occupying the space between the vertebral arches on the sides, and the floor of the canal and the roof formed by the junction of the arches in front and behind, respectively. A defect, which in early fetal life could exist as a meningocele or as a myelo-meningocele, would cease to be such with the retraction of the cord and membranes, and in the absence of the arches—a condition always found in all types of spina bifida; the skin edges meet in the bottom of the groove and become adherent to the periosteum lining the same. Thus we have an obliteration of the canal, either partial or complete, which normally serves as a passageway for the residue of the cauda. The result is an impairment or disappearance of the nerves thus impinged upon—a condition which will be observed clinically by faulty innervation or lack of proper development of the corresponding muscular structures.

A traveling salesman, 21 years of age, in good health, seeks relief from an embarrassing condition. He has always had a weakness of the vesical sphincter; was a bed wetter until about 14 years of age; avoids this now only by getting out of bed at night as often as the bladder fills. He is convinced that he does not have the control of the anal sphincter to the extent that others seem to have, for when the stools are thin he frequently soils himself because of his inability to retain until he reaches the toilet. Examination of the external genitals, bladder and prostate, reveals nothing abnormal. When he bears down, as if endeavoring to

force stool, the pelvic floor flattens out so that the anus projects as far downward as the ischial tuberosities. The anal margin, which ordinarily is corrugated, becomes smooth and there is an undue projection of the anal mucosa.

Examination of the spine reveals a marked dimpling in the median line at the level of the junction of third and fourth sacral segments. The arches below this point are absent.

In true spina bifida, or in spina bifida occulta, occurring in girls, there may be found prolapse of the uterus, partial or complete, depending upon the location of the lesion and the size of the defect. It is also noteworthy to observe that coincidental with congenital spinal cord or caudal lesions, may be found anomalies of development in parts peripheral to the nervous lesions such as, for instance, imperforate anus and club feet.

A married woman, aged 30, gives a history of anal and vesical weakness dating from birth. At 15 she was operated for imperforate hymen. Twenty months ago gave birth to a child. Labor was remarkably easy and there was no laceration except for an insignificant muco-cutaneous tear. Convalescence was prompt and normal. Now has uterine prolapse and cystitis, due to faulty bladder drainage. Examination reveals a vaginal orifice of normal size. No visible signs of laceration except that of the fourchette. When the patient "bears down" as if for stool, the floor of the pelvis presents a very striking resemblance to that seen in the second stage of labor during uterine contraction, just before the head presents at the vulva. The levator margins could scarcely be recognized as such by the examining finger, but felt more like very thin non-resisting bands. The cervix presented just within the vaginal orifice.

In this patient a very plainly visible defect of the spine, extending up to and partially including the arches of the third sacral segment, was found.

So far as our investigation in the text-books and literature bearing on this subject goes, we have been unable to find an attempted classification of the defects of the spinal canal which occur below the cauda. We have been calling them spina bifida occulta, but the definition of this term which is ordinarily given would not include them.

The knowledge of their existence is of no value so far as treatment is concerned, but they may assume a considerable importance from diagnostic and prognostic standpoints.

Finally, we wish to admit that we have freely consulted and drawn from literature pertinent to this subject. Particularly was Murphy's contribution to Neurological Surgery of help in the preparation of the first part of this paper, due credit for which is hereby gratefully acknowledged.

DISCUSSION.

Dr. Clark, El Reno: I want to deal with the subject from the tran-

and the solution of the problem that has confronted so many of us as to the ability of the sphincters to do their work. The operation on the spine is not so simple. I only recall four cases of spinal trouble coming under my care in the last few years, three of which were inoperable. I was particularly interested in one case which was operative, in which a man was riding on a load of baled hay and came through a gate that was built like so many gates we see out in this country, with a high post on each side and a wire stretched across at the top. He did not properly estimate the distance between the top of the hay and the wire and ducked his head to go under. The wire caught him and bending him sharply forward, produced a trauma about the second lumbar vertebra. He was brought to the hospital and for some time he remained there, and his sphincter control was absent. He began to improve until he could move the toes and certain portions of the surface had a return of sensation, and then I felt that as that improvement ended there, that I ought to, in justice to him, undertake to improve the condition. We all know a severed cord cannot be repaired, but where there is a returning degree of sensation I think we are justified in attempting to better the condition. I found some small pieces of bone that had been forced in, and a small fracture, and there was a tenderness over the point that guided me to that. I opened that and removed the particles and had some returning to an increased degree of the normal condition, but the man was a man of small means and soon afterwards was removed from my care to some relative in Texas. I lost track of him beyond hearing from him once or twice six or seven weeks following and he told me he had never sufficiently regained power to walk. There is a case in which I feel sure, could I follow up the case, more improvements could be brought about. Those are the cases that tax the diagnostical ability of a man as to when he should operate for the best interests of his subject.

I certainly enjoyed the doctor's paper and I think we were all benefited by hearing it.

Dr. Long, Oklahoma City: I had occasion about four or five years ago to do my utmost in a case of a young man working on a car side dumping for a railroad company. He was sitting on a side beam and the car came back and pinched him, producing a fracture and a forward dislocation of the first and second lumbar vertebra. The case was placed in a way so we could stretch the spine and a plaster cast placed on it, including the chest and abdomen. Two or three months after that he used crutches and came back through Oklahoma City. When I first examined the case there was a forward dislocation of the spine. I did not examine him in Oklahoma City, but a year or two after that I examined the spine and the cast. Taking the pressure off the spine had allowed the vertebra to return to their position. The four vertebra were all put together as one. The case of a man working in a mine, and realized something was wrong and tried to save himself. One of the supports in a small room in which he was working gave way and allowed a shower of slate to fall on him.

He threw himself partly out of the way, but the slate covered the lower portion of his body to the extent that he said it gave him the sensation as though he was expelling all the abdomen out through the rectum. The lower portion of his body was paralyzed for two or three months. We placed him in a position of rest until a complete return of the functions of the lower portion of the body. I had some instructive observation in watching Dr. Murphy treat a case of paralysis of the lower portion of the abdomen from injury of the spine, where the urine was milked out. These cases brought up the point the doctor brought up in his paper today. I have been doubting how would be the best to handle those cases. I think I arrived at the proper conclusion: Where it can be sufficiently drained without getting cystitis, do not operate; but where there is a tendency to get it, it should be opened up and drained.

If an X-ray is available, an X-ray ought to be used to see whether there is any fracture of the vertebra, and if so to operate and remove the spicula that may be penetrating the cord, but whether or not the man should be moved immediately following the injury, with his plaster cast, to a place where he can be X-rayed immediately, is a point to be considered, and I believe it should be wise to do so, because of the future of the case. If you have a spicula of the bone then the rest with the cast will not recuperate the case.

The Chairman: If there is no further discussion, I'll ask the doctor to close.

Dr. Reed: Further than to thank the gentlemen who discussed the paper, I have nothing to say.

THE IMPORTANCE OF PAIN AND SHOCK IN OPERATIVE MORTALITY.

Leigh F. Watson, M. D., Oklahoma City.

The phenomena of pain and shock has been known for many centuries, and clinically studied and classified by many ancient as well as modern surgeons. It is impossible to accurately estimate the degree of afferent nerve stimulation that is requisite to destroy life, because the shock value of every individual varies. While it is probable that shock value is largely a personal factor, or physiological function, it is nevertheless true that there are racial values as well as individual values. Some claim it depends on the state of the internal secretions and their balance. The hyperthyroidal Swiss has a higher shock value than the Italian, and the lively Frenchman is more easily perturbed than the phlegmatic German. A person in middle age has a lower shock value than a child or an old person.

It has been shown that the shock value of an individual varies from time to time, and different parts of the body have different shock values. A blow below the belt will cause acute distress while the same blow on the chest will pass unnoticed. Another element is that of unpreparedness, a false step in the dark may momentarily shake the nerves of the strongest man. A piece of bad news or a terrifying sight produces a distinct psychic trauma or shock. Many people have indeed died of simple fright.

What we term shock is undoubtedly a defensive reaction of the autonomic nervous system against assault that has been committed. If it was not for the protective influence of shock we would succumb more quickly and the reaction would be more intense than now occurs. It may fail at times, or even be too intense for the safety of the individual, but the fact remains that, as Crile has pointed out, the shock mechanism is one forged many generations ago in the history of the race, when some apparatus was necessary to secure instant preparation for flight or withdrawal on occasion of danger.

The most intense form of shock is commonly regarded as those cases of sudden death where there is no precedent disease—death by inhibition—death brought about by events that produce no obvious lesion, death following immersion in water before the patient has time to drown, death following a simple operation where the pulse and temperature remain normal until death occurs from respiratory failure. When, on the other hand, shock falls short of immediate death, there may be profound shock for 24 to 48 hours, which terminates in death or gradual recovery. This is the common kind of shock, from which people suffer after serious injury or operation.

Shock also has relation to things just prior to operation. Disturbances of the mind just previous to operation are due to fear and anxiety. This is psychic shock. There are many other factors that indirectly produce shock. If the disease for which surgical intervention promises relief is one which affects the nervous system in a depressing way, any delay in operation will bring the patient to the operating room in a condition of shock. In these cases, as in those where the operation is unexpected, the dangers of the unavoidable psychic, anesthetic and operative shock are naturally greater. This is unusually evident in cases of intestinal obstruction and exophthalmic goiter, therefore, the earlier the diagnosis by the physician, the greater the success of the operation, both as to the local disease which demands a cure and the general nervous system which has to stand the trauma of the operative cure. There is a class of cases which, after the infliction of trauma, the subject displays emotional perturbation, rallies, seems to be doing well, and yet ultimately develops symptoms which may be unusually severe or terminate in death.

The cases which recover sometimes pass as traumatic neursthenia, in which a definite latent period elapses between the symptoms immediately displayed and those that develop later. The cases in which, after a varying period, grave or even fatal consequences may ensue, are those which are referred to as delayed shock.

Common to traumatic neursthenia and delayed shock are unexpectedness of the injury, and high psychical, rather than physical, value of the causative incident. The prolonged anxiety and stress of shipwreck is not so effective in producing traumatic neursthenia or delayed shock as is a railway collision. When we are suddenly frightened, if taken off our guard, we turn pale. The blood is diverted from the skin, where it is not

needed, to the heart and lungs, so that these organs are well supplied for the immediate flight prompted by our ancestral origins. Cannon has demonstrated that when animals have been subjected to injury, or deliberately frightened to death, the adrenal system (a part of the mechanism that controls the blood distribution), may be so completely exhausted by its efforts that it becomes powerless and death ensues.

It is my purpose to show that there is a definite connection between death from inhibition, surgical shock, delayed shock, traumatic neurasthenic, post-operative ileus, death following trivial injuries, and apathetic death "without apparent reason."

We see the physiological explanation of delayed shock in human beings. Cases of delayed shock are not uncommon, but they are often masked—when an aged person dies a week or two after a fracture of the thigh or other trivial injury. There is usually immediate manifestation of some psychical agitation; but this may pass off. There is a varying period in which the patient may seem to be suffering hardly at all, but there are indications of interference with visceral functions. The blood pressure is affected, and the heart tends to dilate as it loses tone. The urine is scanty. There is constipation, flatulence and shortness of breath. As it may be the respiratory, cardiac, gastric or intestinal symptoms that attract the physician's attention, so if death occurs, it is ascribed to congestion of the lungs, heart failure, pressure of the stomach on the heart, intestinal toxemia or even suppression of urine.

Crile states that the dangers from high blood pressure are embolism, thrombosis, angina pectoris and broncho-pneumonia. Low blood pressure may be either physical or psychic and is usually associated with shock, anemia or hemorrhage, which should be controlled before operation.

When hysteria continues after trauma, the patient will probably recover with little psychical damage. When the early psychical disturbances have play, but are controlled, traumatic neurasthenia, or the more marked type of delayed shock may ensue. Sometimes there is no initial hysteria; the subject displayed a peculiar apathy, and death is quite sure to follow. In such cases the autonomic nervous system is thoroughly disorganized, probably by inhibition from above. A woman who does not cry in the presence of a great sorrow is as likely to die as the Bengalese who can not sweat on a summer day.

In traumatic neurasthenia the protective mechanism of the body is taken by surprise. There is no preparatory adjustment of the blood distribution in the body. It is easy to understand how, given a high shock value, under such circumstances the protective adaptation may be out of all proportion to the occasion, as when an ocean liner strikes an iceberg or a telephone operator is excited by a rumor of fire.

Henderson of Yale has shown that there is a definite relation between shock, vaso-constriction and that condition of acapnia in which there is such a diminution of carbonic acid gas in the tissues and blood that the respiration is slowed until the carbonic acid gas accumulates up to stimu-

lating strength, and hyperpnoea or dyspnoea returns. In laparotomy such a loss of carbonic acid gas may occur in this way that acapnia is produced, and may be a factor in death under anesthesia or afterwards.

It is well known that mere opening of the abdomen abolishes peristalsis of the stomach and greatly reduces that of the intestines. Motility is not restored for a considerable time after the abdomen is closed. While Henderson thinks acapnia is the cause of shock, Crookshank believes it is a part of the shock, since Crile has demonstrated that the carbonic acid gas is not given off if the displaced viscera are covered with omentum. It is interesting to note that Mr. Arbuthnot Lane covers the intestines with a vaselined silk sheet, during abdominal operations, and it is stated that his shock effects are remarkably slight.

The simplest and clearest cases of fatal apnoea are those which occur after intense pain. When death follows intense physical suffering not complicated by hemorrhage, there are two principal stages. At first the excessive breathing diminishes the carbonic acid content of the blood. If at any time after this condition of acapnia has been induced the pain is greatly diminished and the respiratory center is allowed to relapse into a standstill, fatal apnoea vera may occur. If, on the other hand, the pain is sufficiently continuous to keep the respiratory center continually excited, then apnoea is prevented and the condition of acapnia becomes more and more acute and general until the circulation fails, and the subject sinks into surgical shock, according to Crile's definition. Both fatal apnoea and the more slowly developing failure of circulation are due primarily to the excessive breathing induced by the painful afferent nerve stimulation.

Henderson says those cases of fatal apnoea, which more than any other interest the clinician, are the failures of respiration under anesthesia. If a patient ceases to breathe in his bed it is his own fault, but if he does so on the operating table the anesthetist has to bear the responsibility. For such cases of apnoea the acapnia hypothesis affords a simple explanation. The anesthesia diminishes the strength of inflowing afferent inflowing irritations. Furthermore, the profound anesthesia raises the threshold of the respiratory center for carbonic acid gas, in other words, the respiratory center of man or animal in profound anesthesia automatically maintains more than the normal carbonic acid gas content in the blood. Thus when man, woman or child has suffered prolonged pain and has thereby been brought into a condition of more or less acapnia, the production of anesthesia by removing the afferent pain stimuli, and also by raising the threshold and diminishing the sensitiveness of the respiratory center for carbonic acid gas, inevitably leads to acapnia.

The acapnia hypothesis of Henderson requires the prevention of excessive pulmonary ventilation. The administration of morphine and full anesthesia diminish the activity of respiration under pain and thus prevent acapnia. If, however, you administer morphine or chloroform to a subject after he has suffered some time, you hasten fatal apnoea, unless you give carbonic acid gas at the same time.

In India it is customary to partly smother men who have been severely injured. It would probably be wise when a man's legs have been crushed in a railway wreck to require him to breathe into a paper bag to prevent apnoea. The most important factor in the prevention of shock is to prevent the pain.

The elaborate breathing exercises of the Yoga or Vendanta philosophy, practiced for more than a thousand years in India, are means through which, it is claimed, the subject can gain control over the heart rate and other functions, can render himself insensitive to pain, or even unconscious, and can induce mental exaltation and hallucination. In some of the older works on surgery it was directed that prior to a minor operation the subject should for a few minutes perform forced respiration.

The researches of Crile in the cerebral pathology of shock have placed on a scientific basis a satisfactory explanation of the nerve exhaustion effects of sudden, severe, long-continued or oft-repeated mild irritative and painful lesions in the production of neurasthenia. While the cure of neurasthenia by surgical operation is necessarily slow and tedious, and in some cases doubtful or impossible, the prevention of this distressing condition is easy, provided the irritative lesions located in the areas abundantly supplied by nociceptors—the abdomen, pelvis, rectum, anus, external generative organs, neck, face, etc.—are removed before the brain pathology has become irreparably damaged. Crile's researches, especially the production of shock by summation of slight impulses from trivial irritative lesions, afford ample scientific proof of an old clinical observation, that the best preventative of neurasthenia is a complete removal of all local pathology which may interfere with recovery during convalescence.

Reisman and others have clearly shown that during attacks of biliary colic, cardiac murmurs frequently develop as a result of dilatation. This is due to the increase in blood pressure the result of agonizing pain.

Hysteria is a defense against injury to personal interests, while neurasthenic manifestations are protective to physical stresses. If an hysterical woman is called upon to make some sacrifice, she finds her defense in throwing out of gear the mechanism that should be employed in the ungrateful task.

ARTERIO-SCLEROSIS.

W. G. Little, Okmulgee, Oklahoma.

An old proverb has much of truth in it which says: "A man is as old as his arteries; a woman is as old as she looks," and this disease of arterio sclerosis has been one to be mentioned in the books, but until recent years not considered very seriously nor studied very carefully. As a physiologic concomitant of age, it undoubtedly is a more or less natural entity. That it may be a pathologic condition inducing the phenomenon of age is perhaps nearer the truth if we regard the theories of Elie Metchnikoff with more than passing credence. However this may be, the great classical writers in medicine, pathology and histology are devoting pages

now to this condition where a few years ago they were giving paragraphs, and I think there can be little doubt but that the future will make us all more watchful for this foe to youthfulness than we have been hitherto.

Arterio-sclerosis to most of us has been a vague condition rather than a definite disease entity, having a definite finding, and based on logical and reasonable grounds; having a stable existence in mechanics, and a proportional cause and effect. To point out some of these will be the main object of this paper and if it awakens us to a knowledge of our rustiness in the fields of histology, physiology and pathology, and to how much this knowledge is essential to us in understanding this variable and somewhat intangible disease, the writer will have been amply repaid for any labor he may have devoted to it.

On November 11th, 1912, J. W., age 41, came asking to be told his trouble and gave his history as follows, and being a friend and acquaintance of several years, I knew much of his complaint by way of rumor, he having been of the clientele of another physician in the town. He had been well till something like a year and a half ago, except for "malaria" or "liver trouble," synonymous terms with most laymen and many physicians. There is no history of chills. An appendix operation was done five years ago. He is troubled at times with hemorrhoids and has been constipated for years. His work for eight years has been that of station agent for the Frisco railway, in which capacity his work has been very heavy. About a year ago he was thrown in a car which was switching, and had his back hurt, which injury incapacitated him from work for six weeks and discommoded him for many months, leaving a permanent injury to the spine.

About a year ago, while over town on business, as he was crossing the street dizziness suddenly attacked him so that he staggered. Feeling so badly, he sought his physician, who told him "he was working too hard," and that a rest was all he needed, when he would feel alright. He resigned his work and spent his time at light employment, and several months at the "springs" in Missouri. The dizziness and all the general discomfort continued, however. He complained of headaches, was very nervous and irritable, easily tired and quite despondent.

The findings in the case were as follows:

Eyes: Normal, vision being 20-20.

Reflexes: Increased.

Heart: Enormously enlarged, the apex being outside the nipple line and displaced downward, being fully $2\frac{1}{2}$ inches from normal location, and the base extended to the right of the sternum by $1\frac{1}{2}$ inches. A murmur (judged to be haemic), was heard over the base.

Liver: Was much enlarged and quite tender.

Spine: Slightly deformed and the seventh and eighth vertebral processes were depressed, flattened and tender, giving rise to considerable soreness and discomfort in that region. This was the result of the fall in the car previously mentioned.

Arteries: Generally hardened.

Urine: 1400 cc in 24 hours. Color: dark straw. Odor: normal. Reaction: acid. Sp. Gr.: 1.015. Total solids, by estimate: 45 grms. in 24 hours. Albumen: none. Sugar: none, Microscopic: Casts—0; Blood—0; Crystals—Normal.

With this picture the patient was told he had arterio-sclerosis. The etiology in his case was considered as being due to the hard, nerve-wearing work he had undergone, and to auto-intoxication, he being a heavy meat eater, and to sluggish bowels.

A discussion in general of this disease may not be amiss by way of emphasizing the facts with which you are all familiar. Let us do so by first considering the normal circulation. To carry on this circulation we have a system of tubes and a great central pump. The tubes leading away from the pump are for high pressure service and are also elastic. The normal pressure maintained for the arteries is about 100 to 120 M. M. of Mercury. The histological makeup of the arterial coats is as follows: The inner lining of endothelium forms the intima; The middle coat of muscle fibres, the media. The outer coat is one of fibrous elastic tissue, making altogether an elastic, distensible tube, that receives the volume of blood from the systole of the heart by distension, and keeps up the even, regular flow by contraction during the heart's diastole. With the normal circulation each organ secures its proportionate supply of blood and thereby the nourishment of the entire system is provided for, and the waste materials eliminated. When some foreign element or unnatural condition is injected into this economy, derangement is invited, and disease may supervene as it does in arterio-sclerosis.

For the purposes of demonstrative comparison let the pathology of this disease be considered next. We have besides the gross pathology of the tissue, what might be termed also a pathology of function. The former is manifested by various grades of a process that may be found in every stage. And while the disease attacks earliest and perhaps oftenest, large vessels under greatest stress, yet it also may involve all the vessels, or the vessels of a particular organ. In the larger vessels the various stages of pathological degeneration may be tabulated as follows:

1. There are areas of fatty degeneration of the intima which areas are yellow and not raised.
2. These areas are larger and are gelatinous in consistency and raised above the surface—i. e., projecting into the lumen of the vessel and are common at the orifices of vessels or where one vessel branches off from a larger trunk.
3. These gelatinous areas become larger and form plaques.
4. And in this stage the plaques may have a deposition of calcareous substances thus forming calcified plaques.
5. Areas of atheromatous softening, and by progressive degeneration give rise to a more advanced stage of atheromatous degeneration.

6. Atheromatous ulcer, opening into the lumen of the vessel and attacking very seriously the integrity of the vessel wall.

7. Here the entire intima is involved, also the media, which is atrophied by the irritative lesion and encroached upon by pressure of the inflammatory infiltration and often by the calcification or even ossification of the vessel wall, hence giving rise to dilatation.

These changes give rise to the functional pathology, shown in the heightened blood pressure, the over-worked heart, and the underfed organs. This derangement of function is brought about because of a mechanical and functional basis.

The mechanical demonstration is evident in the loss of elasticity of the artery which demands an increase in the force of the propelling organ to insure the velocity and the volume of the blood to be supplied to the system. Again the partial closing of the lumen of the vessels is equivalent to the substitution of a smaller vessel to do the same work. All this throws a constant and added amount of work on the heart.

The functional basis further is found in a lessened blood supply to some organs, which invites pathological changes in their tissues, lessens the efficiency of their work, which in turn may be a part of the vicious circle reacting to induce more disease and derangement in the metabolic processes of the body. In other portions of the body, owing to the general high blood pressures, some organs will have an over plus of blood and in the stress of that condition will fail to function properly, due to the congestion, or as is frequently the case, the vessel will rupture and consequent phenomena of hemorrhage will follow.

Turning now from the pathology let us review the etiology of this disease.

1. **Wear and Tear of Life:** As an ordinary result of constant use and the supplanting of epithelial by fibrous tissue as a concomitant, physiologic change due to old age. Also the constant work of the circulatory system. The blood passes through the aorta at the rate of about ten inches per second, and has a distending force of $2\frac{1}{2}$ pounds per square inch. There are 100,000 beats of the heart in 24 hours, so that the work of the heart and principal vessels during 40 or 50 years is very great, and no wonder that usage damage should arise.

2. The acute infections are an important factor in the etiology of this disease and among these acute infections syphilis stands at the head of the list and is notorious as a producer of sclerosis. Other infections are typhoid, influenza, scarlet fever, some of these being diseases of childhood, producing a sclerosis early in life.

3. **Intoxications.** These may be of two kinds or from two sources:

(a) **Exogenous,** (or the ones from the outside). The most important of these are alcohol, lead and tobacco. Any one alone may produce sclerosis of the vessels in one individual while it may not in another. Experimentally lead will produce a sclerosis in animals in a short time. So also

will certain drugs, as epinphrin. Hence lead workers are in danger, other than from lead poisoning, and the alcoholic adds to his disability of an early old age, the disability to pursue callings of trust and responsibility.

(b) **Endogenous.** These poisons arise as a result of perverted metabolism and the most prolific factor I believe is auto-intoxication arising from the alimentary canal. The excessive eating of meats is perhaps the most active agent in producing derangement. The meat being only partly digested, may putrefy in the intestine and give rise to a toxin of violent intensity. This, to my mind, is the foundation of many more ills than we credit it with. That this toxin is a violent poison is evidenced by the excessive disturbance of the whole system caused by the so-called ptomaine intoxication which is so often seen and read about in this age of "canned" living.

4. **Conditions that keep up high blood tension:** There are many things that keep up high blood tension, but two are very important, namely: over-eating and hard labor. (a) Over-eating and drinking act in two ways to induce sclerosis, by keeping the blood vessels constantly distended, and by the primary and secondary processes of metabolism by which substances may be formed which are directly toxic to the vessels, or as Hare described, "A hyper pyraemia, a state in which the system is damaged by products of imperfect metabolism." Allbut says, "One main cause of rising arterial pressure in middle life is excess of feeding, that is to say, of food in excess of work and excretion."

(b) Excessive muscular and mental work will tend to increase the natural wear and tear of life and hasten the sclerosis of the vessels. This does not mean that every excessive eater or drinker will have this disease, or that every man who labors hard at manual labor will be a victim of this malady. But with a history of these causes and the presence of a sclerosis, an easy deduction is offered.

The diagnosis rests on four cardinal findings. Thickened peripheral vessels, hypertrophied left ventricle, high blood pressure and albumen in the urine.

The prognosis in general is not good.

The treatment should be along hygienic, dietetic and medicinal lines. An even contemplative life free from strenuositities; a low, nourishing, non-stimulating diet, with a minimum of meats; and some of the drugs that will reduce blood pressure somewhat, strengthen the heart, and promote the general health.

The essential for the physician, here, as in most diseases, is for him to have a clear picture of the mechanical, functional, physiological and pathological conditions. Without these he is working by guess and not in an intelligent, scientific manner as the wise physician should.

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Failure to receive the Journal should call for immediate notification of the editor, 507 Barnes Building, Muskogee, Okla.

Local news of possible interest to the medical profession, notes on removals, changes in address, deaths and weddings will be gratefully received.

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EDITORIAL

THE SURGEON THE SOLE JUDGE.

Justice Garrison, of the New Jersey Supreme Court, has recently decided that a surgeon has a right to extend an operation beyond the limits originally contemplated, without permission from the patient, when in his judgment, such an extension is necessary and the patient is under an anesthetic.

Dr. Victor Parsonnet of Newark was sued for assault and battery and mulcted to the extent of a one thousand dollar verdict because he operated more extensively than had been agreed upon with the patient. It seems the patient applied for an operation, the nature of which is not stated, which two years before had been operated unsuccessfully, and Dr. Parsonnet, learning that he was a poor man, agreed to operate free. During the operation it was found that the condition was more serious than he had supposed, and that unless an extension of the operation was made, the patient would possibly die. This was done; the patient recovered and is now well.

The suit is one of those remarkable expressions of gratitude so often

shown by paupers and the viler tribes of humanity with which the human race is infested.

Justice Garrison upheld the common law principle that a surgeon must get consent to operate, but holds that the unconscious condition of the patient would prevent this, and that the law must therefore give way before the exigency of the case.

THE USE OF IODINE.

Many writers within a very short period of time have called the attention of physicians to the use of iodine in routine surgical work. It is not necessary to call the attention of students and clinicians to this drug, but as many practitioners do not appreciate its great value, a note here is not amiss.

The three and one-half per cent solution is the favorite. It will be found useful for office work where rapid sterilization of the skin is desired, preceded by benzine to remove all possible fat, its application rendering the skin more sterile in a shorter time than any known measure. In no case should water be used prior to the application if possible. The drug has a very useful field in obstetrical work. If, prior to delivery, it is applied to the vulva and pudendal hair, the sterilization will be found sufficient.

Some workers, just prior to instrumental delivery, apply this to the vaginal surfaces and cervix, and hold that it is highly efficient and preventative of ophthalmia and infection in the most suspicious cases.

The drug is also used by some with marked success in endometrial affections, it being introduced through the os under pressure, and is said to largely take the place of curettements in these conditions. Its introduction prior to curettements also renders the operation safer.

Dr. J. W. Bovee of Washington has for some time introduced it under high pressure into the uterus, prior to abdominal operations on the uterus and its appendages. He states that it often goes entirely through the tubes and is found free in the abdominal cavity. He states that at first this seems alarming, that the appearance of the parts on opening the abdomen resembles that of a ruptured ectopic, but that in no case has harm resulted from its use in that manner. Its well known use in stitch abscess, following operations in sinuses containing pus and abscesses, needs no comment here. It will be found one of the most useful drugs a physician can carry. In emergency cases a physician with iodine is a physician prepared to cope with the situation.

We can offer no better suggestion to those having industrial workers to treat for emergency injuries, those employed in shops, railway yards, mills and mines, than a close adherence to iodine in the initial dressing of the patient. These cases are often found to have grease, dirt, cinders and clothing ground into the tissues, a condition almost impossible of cleaning, but if the surfaces are cleaned with benzine or turpentine care-

fully, all foreign substance scrupulously removed and the entire field painted with the iodine solution the results will be found more than satisfactory in nearly all cases so handled.

WOMEN'S CLUBS AND THE PUBLIC HEALTH.

One of the matters of congratulation to Health authorities, and which will go far towards effecting a final solution of many of the vexing conditions in connection with the public health, is the activity of the women's clubs in this respect.

It has long been conceded that nothing like the ideal in public health matters can be attained without the co-operation of the people. As has been pointed out heretofore, this co-operation can only be obtained by interesting them and showing them that it is a matter of extreme interest to them. The enactment of laws for the protection of the public health are necessary and are all good enough in their place, but they are inadequate without co-operation. Whenever the health authorities become too active, a certain class of people, pseudo-scientists, educated and created by such isms as the Christian Science, Chiropractors, the Osteopaths, etc., at once protest against what they are pleased to call vicious governmental interference with the rights of the individual, the cry of paternalism is raised, and they prate loudly and long of the constitutional rights of the individual. Their system seems to hold that they must have their constitutional rights, even if the rights of others are infringed upon. An examination of the laws in force in the states of the Union today with reference to the sale of adulterated foods and drugs, the practice of medicine, the treating and healing of the sick, the suppression and limitation of infectious disease, reminds one of a circus. They are good, bad and indifferent. The good effects of a good law are often nullified by an assinine court decision, the court, apparently, deliberately starting out to nullify.

The people should know, but doctors cannot tell them all, that as a rule disease follows well known biological laws; that there is nothing mysterious about it. They should know that it is no more difficult to prevent the spread of consumption among men than it is to prevent the spread of Johnson grass on the farm; that it is just as easy to prevent diphtheria as it is to prevent certain kinds of vegetable growth. Owing to the hostile influences about them, they do not accept the dictum of the medical profession, but turn to ill-advised, immature sources for information.

We can reach these people best through the women's clubs, and from time to time it should be the duty and pleasure of those physicians who are capable of doing so to meet and co-operate with these clubs in the best possible manner.

WANTED—Nurses to take training in 3-year course. School acceptable to Oklahoma State Board. Pay \$5 per month first year, \$7.50 per month second year, \$10 per month third year. For particulars and prospectus, address Superintendent of Nurses, El Reno Sanitarium, El Reno, Oklahoma.

GENERAL NEWS

The Mayes County Medical Society met at Strang July 3rd. Dr. G. W. Tilly read a paper on "Anti-Typhoid Vaccines;" Dr. Carl Puckett on "Diseases of Infancy and Childhood;" Dr. W. M. Nagle, of Muskogee, on "Refraction," and Dr. J. L. Adams on "Malaria." Dr. J. L. Hollingsworth tendered a dinner to the visiting physicians.

The Commanche County Medical Society held its last meeting of the season at Medicine Park, twelve miles from Lawton. The members enjoyed a swim, after which supper was served at the Medicine Park Hotel. The meeting was held at the Club House. The paper of the evening was given by Dr. L. J. Moorman, of Oklahoma City, subject, "Arterio Sclerosis." The visiting physicians were Drs. L. J. Moorman, E. S. Ferguson, Oklahoma City; H. A. Conger, D. Long, E. B. Erie, Duncan, Oklahoma.

Dr. John W. Riley of Oklahoma City spent some time in Johns-Hopkins Hospital, Baltimore, during July.

Dr. L. F. Watson, Oklahoma City, has recently visited the clinics of New York City.

Dr. B. R. Tubbs of Ft. Gibson has moved from that place to Sallisaw.

Dr. M. O. Moore of Braden, Oklahoma, has moved to Spiro.

Dr. H. A. Moore of Arapaho has located in Canton.

Dr. T. B. Hinson of Thomas has moved from that place to Enid.

Dr. M. H. Levi is in Chicago taking post graduate work. Dr. Levi contemplates the establishment of a hospital at Elk City.

Dr. Augusta L. True of El Reno was found guilty in the Federal Court at Enid with using the mails to defraud. A sentence of ninety days was given in the case.

Dr. and Mrs. Walter Jones of Enid recently motored to Rochester where Dr. Jones will do post graduate work. On their return they will visit relatives in Brookfield and other Missouri points.

The Tillman County Medical Society met at Quanah. The paper of the day was by Dr. J. H. Hansen on "Typhoid Fever." Dr. and Mrs. Fuquah entertained the Society with music and refreshments.

The McIntosh County Medical Society met July 8th in Checotah. The paper of the day was by Dr. J. N. Shauntz on "Syphilis." The visitors were Drs. W. B. Newton, M. M. Rowland and A. B. Montgomery.

The Beckham County Medical Society met at Erick, July 10th. A banquet was given at the Pullman Hotel. A large number of physicians attended the meeting. It is said to have been one of the best Beckham County has had for a long time.

Dr. J. Hutchings White and Mrs. White of Muskogee have a cottage at Lake Geneva, Wis., where they are spending the summer.

Dr. G. E. Hartshorne of McAlester sailed for Vienna and other European points on the 24th of July. Dr. Hartshorne will be absent for several months doing post graduate work in the eye, ear, nose and throat centers of the country.

The profession of the state will be shocked to learn of the sad death of the wife of Dr. S. M. Jenkins, which occurred recently in Enid. It is said that an intractable and uncontrollable hemorrhage following the enucleation of the tonsils caused her death. The sympathy of the profession of the state is extended to Dr. Jenkins in this great trouble.

Dr. F. B. Fite and family, Muskogee, will spend the summer at their summer home, Davidson's River, North Carolina.

Dr. J. C. Mahr, State Commissioner of Health, and Mrs. Mahr are taking a short vacation with Dr. Mahr's mother in Kansas.

A CORRECTION.

Oklahoma City, July 10, 1913.

Dr. C. A. Thompson, Muskogee.

Dear Doctor: In the July issue of the "State Journal," under the caption of "Discussion" on Dr. Garrett's paper, I am credited with rather a lengthy talk. This is an error, probably the stenographer's. It should be credited to Dr. Kelso of Enid. Please make the proper change.

Fraternally yours,

JOHN F. KUHN, M. D.

SOME DIAGNOSIS THIS—A TRUE STORY.

By A. Wag.

A short time ago one of Oklahoma City's prominent young physicians was called to see a baby patient and upon responding to the call, the following probable dialogue took place:

Mrs. A.—Good morning, Doctor. I want you to look at my baby. He has a peculiar thing on his body, (indicating Gluteus Maximus Region).

Dr. B.—How long has this been here?

Mrs. A.—Oh, I think for some little time, but really I only noticed it a few days ago.

Dr. B.—Of course the baby has not complained much with it, has he?

Mrs. A.—No, not much, but he seems a little more cross the past few days than he has been before.

Dr. B.—(Carefully examining the baby and looking wise). Well, madam, this is a rather interesting case, and while I have seen a great many of them and ordinarily, unless one is accustomed to seeing this kind of cases, they would call this a boil, but it is not; it is what we call a supernumerary nipple; by that I mean a nipple situated on some part of the body where it should not be. It would never have caused any trouble and if, at a little later date, you want it removed, it can easily be done by a surgeon.

Mrs. A.—Well, Doctor, what is the cause of this condition?

Dr. B.—Well, this is caused by portions of embryonal material entering into the composition of the mammary gland, being carried to distant parts of the body and growing there.

Mrs. A.—Well, Doctor, I will let you know in a day or so how the baby is getting along.

Dr. B.—Alright, telephone me.

A few days later the telephone rings.

Mrs. A.—Hello Central! Give me Main 4-11-44! Yes, Main 4-11-44! Hello! Hello! Is this Dr. B?

Dr. B.—(Over the 'phone.) Yes, this is Dr. B.

Mrs. A.—Well, Doctor, I thought I would call you up and tell you how the baby is getting along?

Dr. B.—Oh, yes, how is he, Mrs. A?

Mrs. A.—Well, Doctor, he is getting along nicely now. The "risin'" that he had and which you called an extra nipple, broke last night, and as a consequence he is feeling better.

Dr. B.—(Greatly surprised) Is that so? I am surprised indeed, I do declare.

Mrs. A.—Well, is there anything you could suggest, Doctor, for it?

Dr. B.—No, I guess if you keep it clean and keep a little cloth over it, it will get well in a few days.

Mrs. A.—Well, Doctor, this evidently was a boil, was it not?

Dr. B.—Yes, I guess it was. Well, goodbye Mrs. A.

(Hangs up the 'phone.) Then Dr. B. proceeds immediately to look up Hirst on Obstetrics and turns to a description of supernumerary nipple.

A DISEASE THAT BAFFLES.

The season when the services of the physician are urgently demanded by the victim of vasomotor rhinitis is now approaching—a season dreaded not alone by the patient, but, not uncommonly, by his medical adviser as well. Particularly is this true of the latter if he has not kept abreast of the most modern ideas on the therapy of hay fever. In any event the disease is one that tries the patience and calls for the application of remedial agents that have been proved beyond peradventure.

In the treatment of hay fever the physician rarely has an opportunity for the application of preventive measures. His help is usually sought after the attack has manifested itself—when the patient is suffering (acutely, in most cases) from the ravages of the disease. Effective treatment is then demanded—and promptly. Administration of the suprarenal substance in the form of its isolated active principle, Adrenalin, is undoubtedly the wise procedure at this juncture. One feels safe in saying this in view of the long and effective service which has been rendered by this agent in critical emergencies. Adrenalin Chloride Solution and Adrenalin Inhalant are the forms chiefly used. The first named should be diluted with four to five times its volume of physiological salt solution, the latter with three to four times its volume of olive oil. Both are administered in spray form to nares and pharynx by means of an ordinary oil-atomizer.

AMERICAN ASSOCIATION FOR CANCER RESEARCH.

At the Annual Meeting of the American Association for Cancer Research, May 5, 1913, the following resolution (the report of the Committee on Statistics and Public Education) was unanimously adopted:

It is the sentiment of this Association that:

- (1) The present instruction of medical students in the symptoms and early diagnosis of cancer is seriously deficient.
- (2) The medical curriculum should include special lectures in the clinical departments dealing specifically with this subject.
- (3) The universities should provide competent lecturers in this subject to address the local medical societies.
- (4) The Associate Members of the Association should be urged to take up the question of the proper methods of approaching the public on the subject of cancer.
- (5) The activities of this Association should at present be chiefly confined to the education of the medical profession.
- (6) This resolution shall be sent to the Deans of the medical schools and the Secretaries of the State medical societies in the United States and published in the medical press.

NOTICE.

The Oklahoma School for the Blind is now permanently located at Muskogee, Okla. The state has provided for some thirty or forty more pupils than were enrolled last year, and any person between the ages of six and twenty-one whose vision is defective and who is physically and mentally able to profitably pursue any one of the courses taught, is eligible for admission. The education of the blind through a state appropriation is made absolutely free. Any one interested in the school, or having a child without sight or even partially blind, should write for catalog and information to O. W. Stewart, Supt., Muskogee, Okla.

NEW BOOKS

BLOOD PRESSURE.

Blood Pressure, From the Clinical Standpoint. By Francis Ashley Faught, M. D., of the Medico-Chirurgical College, Philadelphia. Octavo of 281 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Price \$3 net.

Within the past few years the reading of the blood pressure and conclusions therefrom has advanced very rapidly. Only a few years ago the leading insurance companies of the country began to demand of their examiners blood pressure readings even before the use of the instrument was general among physicians, and no doubt we have all been surprised at the record shown by this scientific instrument conflicting with clinical observations of our opinions of a particular risk.

Aside from its value to the insurance examiners, the sphygmomanometer has a vast field, and is of decided value in the early discovery of arterio-sclerosis, disease of the kidney and heart and many other conditions not necessary to enumerate.

This book seems to be very complete in its conclusions of blood pressure instruments and interpretations generally. It should appeal decidedly to those interested in the work.

VACCINE AND SERUM THERAPY.

Including also a study of Infections, Theories of Immunity, Specific Diagnosis and Chemotherapy by Edwin Schorer, B. S., M. D., Dr. P. H. Formerly assistant Thomas-Wilson Sanitarium for Children, Mount Wilson, Maryland; assistant Rockefeller Institute for Medical Research, New York City, and at one time a member of the faculty of the University of Missouri, of the University of Kansas, and of the Department of Preventive Medicine and Hygiene, Harvard University. Second edition, cloth, illustrated, three hundred pages. Price \$3. C. V. Mosby Co., St. Louis, 1913.

The tremendous strides made in the last decade in the matter of serum and vaccine therapy may well be said to be one of the remarkable wonders of scientific medicine. No fact deducted from past experience has escaped the interest and the specific therapist if it may be used in the furtherance of diagnosis of disease or its treatment; the ingenuity of man hardly seems to have a bound when we ponder on the strides made in this field of medicine alone. While a working knowledge of a great deal of this class of work belongs essentially to the laboratory, every alert physician must have and grasp the significance of serum therapy and vaccines in order to be abreast of the times, so it follows every work on this subject, is eagerly grasped by all classes of the profession.

This volume seems to be an accurate exposition of infections, immunity, specific diagnosis, specific therapy, specific chemotherapy, diagnosis treatment and prophylaxis in the different infections. The technique of many of the little things which the busy physician needs in his every day work is well shown. The work is a commendable one.

SURGICAL CLINICS OF JOHN B. MURPHY, M. D.

Volume II, Number 3, (June 1913.)

The Surgical Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago, Volume II, Number 3 (June 1913), Octavo of 185 pages, 62 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Published Bi-Monthly. Price per year: Paper, \$8; cloth, \$12.

Murphy's Clinics for June, 1913, is just as good as those that have gone before. We believe we have said enough when we say that all physicians' good will is extended the clinics. Among the notable things in this issue is the treatment of Pott's disease (the operation of bone grafting for its cure as used by F. H. Albee of New York City, with also a talk by Dr. Albee and a clinic at the Mercy Hospital on this subject.)

Albee's operation is certainly an ingenious one and so far seems to be the most effective thing advanced for the relief of this class of sufferers, and this issue of the clinic should commend itself to the surgeon who desires to consider that phase of surgery.

The issue also contains Dr. Murphy's operation for Procidentia Uteri, which operation is nearly as extensive as a hysterectomy and therefore probably not intended to be popular. It also contains the report of a clinic held by Dr. Murphy before the Chicago Surgical Society with a demonstration of fifty patients, all of which were bone operative cases.

GONORRHEA IN WOMEN.

Gonorrhea in Women. Its Pathology, Symptomatology, Diagnosis, and Treatment. Together with a review of the rare varieties of the disease which occur in men, women and children. By Charles C. Norris, M. D., Instructor in Gynecology, at the University of Pennsylvania. Octavo of 521 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Cloth \$6 net; half morocco \$7.50 net.

This book is beautifully executed as to type, drawings and color plates. The author seems to have searched all modern literature for his conclusions, and the bibliography is one of the most complete ever involved in one book. Beginning with history of this infection of women, he has searched all literature from the time of Christ almost, to the present. The work is the most complete monograph on this subject, and invades the field of the gynecologist decidedly in pointing out the procedure of many conditions arising from gonorrheal infections in women.

As above intimated, the quotations from other writers are voluminous. The methods of treatment of different stages and classes of the infection are very prolific.

It is a good book. One that will be promptly received, and should be referred to often by the general practitioner who has this class of cases to contend with.

The author is to be congratulated on individual detail and minutiae he has impressed upon the work. The profession will appreciate his efforts in this respect.

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Next Meeting

Address all communications to the Secretary, Dr. J. W. Duke.

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No. 4

DR. CLAUDE A. THOMPSON, EDITOR-IN-CHIEF.

THE MEDICAL ASPECT OF VENEREAL DISEASES.

Curtis R. Day, M. D., Oklahoma City, Okla.

Owing to the multiplicity of remedies for the relief of venereal diseases it is a very difficult problem to concisely present this subject. Some of the other members of the Association who present a part of this symposium can consider all the diseases of this class under one general head, but in order to be at all specific I must consider them separately.

Prior to the discovery of the etiological factors of these diseases it was the belief of many that gonorrhoea not properly treated became syphilis, and there was nothing said about chancroidal infections or other venereal diseases. Since Neisser discovered the diplococcus which produces gonorrhoea such theories have been put to naught. Just here some of the history of venereal diseases may be of more than passing interest. There is no doubt that venereal diseases were known over two thousand years ago, for we find in the early writings of Moses the statement as recorded in Exodus, 20th chapter, 5th verse: "Visiting the iniquities of the parents upon the children unto the third and fourth generations." King David in speaking of himself, in Psalms 6th chapter and 2nd verse, said:

"Have mercy on me, Oh Lord, for I am weak; Oh Lord, heal me, for my bones are vexed."

Later in his life, as recorded in the 31st Psalm and 10th verse, he said:

"For my life is spent with grief, my years with sighing; my strength faileth because of mine iniquity and my bones are consumed."

In 2nd Samuel, 12th chapter, we have an account of King David killing Uriah and taking unto himself Uriah's wife; that she gave birth to a child of David and because of the sins of David the child died on the 7th day. We can with but little effort on the part of our imagination draw the conclusion that King David realized his condition in the earlier stages of syphilis and again during the tertiary manifestations of the disease, for he describes a condition which would lead us to believe that

he suffered from extosis, so well known to us today. Finally we are lead to believe that he was the father of a syphilitic child. In the study of the term "iniquity," "sin" and "unclean," as recorded in the Bible, we are prone to believe that "iniquity" and "unclean," were synonymous to "a lack of virtue." There is no doubt but what syphilis and leprosy were classed as one and the same disease at that time, and hence lepers were cast outside the gates of the city and passers by cried out "unclean! unclean!" Solomon gives us a very accurate account of the street walker, as recorded in the 7th chapter of Proverbs, and as a result of association with her it is recorded that the young man is infected as it were with a dart through his liver. What is more simple to conclude than that this young man had gumma of the liver. Coming down to the time of Christ we find an account of the man who was brought to Christ that his sight might be restored and the statement being made that "he had been blind from his youth up." The disciples, realizing one of the causes of blindness, asked the question, "Who hath sinned, this man or his parents, that he was born blind?" Early European writers whose articles are to be found in today's literature, would impress upon us that syphilis was carried to the old world by the returning sailors who with Columbus discovered America; that these sailors contracted the disease from the American Indians. Those who hold to this theory are digging up the pottery of the ancient mound builder and from the form of some of these specimens draw the conclusion that this people realized that they were the victims to the ravages of venereal diseases. These theorists go so far as to state that the extermination of the mound builders was due to venereal diseases. Early Chinese writers describe a condition very much like what we know as venereal diseases of today. The fact that the gonococcus developed intracellular should at once convince us of the seriousness of this infection. The real location of their germination is never upon the surface but always beneath it. This fact is sufficient not only to account for the difficulties encountered in treating gonorrhoea but also to explain why and how it so often becomes systemic even at times in the earlier progress of the disease. Gonorrhoea is often spoken of as being in the acute or chronic stage. Let us rather consider the subject first, as an infection involving the urethra and adnexa; and second, an infection involving the system producing the well known condition of gonorrheal arthritis, and occasionally endocarditis. In the consideration of gonorrhoeal urethritis we may divide it into anterior infection, (that which involves the urethra anterior to the triangular ligament), and posterior, (that which involves the urethra posterior to the triangular ligament). The anterior infection is not such a serious condition so long as it remains in the anterior urethra, since no important vital structures are found therein, but unfortunately this seldom occurs. When the posterior urethra is involved we must remember that herein are found the ducts to the prostate gland, the ejaculatory ducts and the sphincter opening into the bladder. Since the habitat of the gonococcus is as previously mentioned we may expect very soon to find an involvement of the prostate gland, the vas deferens, vesiculae seminales, and

the bladder. The closing of the ejaculatory ducts very soon produces an inflation of the epididymis and the testicles.

Just here let me say that many childless homes are the result of cases of gonorrhoea of this type wherein the infection has produced a permanent closing of the ejaculatory ducts. It must be remembered that gonorrhoea has the peculiarity of closing ducts at the site of first infection. Not only is this true with the ejaculatory ducts but with the fallopian tubes as well. When the prostate gland becomes infected minute areas often becomes closed for a considerable length of time and what appears to be a cured case recurs as a new infection. This is the class of cases that are the greatest source of danger, one peculiarity of such cases being that the rupture of one or more of these pus sacs and the discharge of the pus through the urethra does not reinfect it, but should one of these cases marry he will infect his wife who will in turn reinfect his urethra and the burden of the blame for this infection fall on the innocent party. In cases of this kind it is well to examine the man very carefully to ascertain the condition of his prostate gland.

Ophthalmia neonatorum must be remembered by the obstetrician, for this is more common than we might at first think, and the proper care of these unfortunate babies not only means much to them but also to an already overburdened citizenship. In the treatment of gonorrhoea as far as local applications are concerned it is necessary that any injection must have in addition to its antiseptic properties absorptive properties to a sufficient degree to permeate deep into the tissues or it will not be able to reach the offending organisms. Again we must remember that the action of the infection is prone to produce stricture, so our treatment must be such that it will prevent rather than augment such a condition. Whenever the infection exists beyond the epithelial structure of the urethra I believe in the use of bacterins, and of all such preparations none have acted so well in my hands as the autogenous article.

As a closing word about gonorrhoea, let me emphasize that it is a very severe infection and that up to the present time its treatment is very unsatisfactory.

The chaneroidal infection, while always a local condition never extending farther than the adjacent lymphatic glands, is usually very destructive and while not of so severe a type as other venereal diseases requires prompt and radical treatment with such agents as formalin, carbolic acid or nitric acid, with free drainage of suppurating glands.

Venereal warts and herpes progenitalis are also local venereal infections frequently to be met and dealt with.

In the consideration of syphilis we are confronted with one of the problems of the age. Unfortunately the laity, and I am sorry to say many of the medical profession, do not comprehend the seriousness of syphilis. This disease is among the most prevalent of our age. It is one that is filling our hospitals for the insane, our institutions for the feeble minded, and adding not a few to our penal institutions. The individual suffering

from hereditary syphilis in this or any other state is a reflection upon the law-makers, upon society, and last, but not least, upon the medical profession. I feel that instead of a discussion of the treatment of syphilis that our time would be better spent in studying methods for its prevention. Here is where prophylaxis is far better than a cure. If I fail to impress you with but one point in this paper I trust that this will be the one remembered: Syphilis is not cured in three weeks or six months, but it **requires far less time in which to contract the disease**. I will admit that all manifestations of the disease can be eradicated in a very short time but this is not a cure. As soon as a diagnosis is made these patients should be told, and very pointedly at that:

First, that a cure can be perfected.

Second, that it can not be accomplished short of from three to four years.

The quacks and charlatans are pretending to secure syphilis cures in from three weeks to six months and it is up to the regular profession to disabuse the mind of the public upon this point. In the discussion of the treatment of syphilis it has been said that Fracastor had the first word and that Ehrlich has had the last word about the treatment of syphilis. In the writing of Fracastor, published in 1530, he gives a graphic description of the use of mercury in the treatment of syphilis and it is astonishing to some of the latter day observers to note the truth contained in his statements.

There came a period of investigation about one century ago when students of medicine desired to know the truth about the agents they employed. Baerensprung was led to the belief, after careful study of his cases, that the administration of mercury in the primary stage only retarded the manifestations of secondary lesions, and often mercury administered during the secondary stage aggravated the tertiary lesions and added to the nervous complications. Therefore he advised no mercurial treatment prior to the tertiary stage.

In the clinics of Europe all sorts of theories and methods of treatment were followed for a time. Diday divided his cases, as follows:

1. Syphilis, which is only indicated.
2. Feeble syphilis.
3. Severe syphilis.
4. Galloping syphilis.
5. Tertiary syphilis.

Diday says: " 'From 1838-1855 I treated my syphilitic patients according to the old routine. From 1855-1860 I systematically dispensed with the use of mercury during the existence of the primary lesion, and at the first outbreak of secondary symptoms I used mercury only in exceptional cases when the nature of the symptoms imperatively demanded it.' Finally since 1860, Diday under the influence of these two forms of treatment, has devised a method whose principle consists in giving mercury temporarily,

not alone when it is indispensable, but whenever its administration proves useful. He declares his adherence to the belief that mercury is unable to destroy the virus of syphilis, and divides the methods of treatment into the "Regular" method and the "Opportunistic" method, which he practices. These methods simply propose to aid the efforts made by nature to cure the disease and the action of hygienic conditions upon it. The regular method requires two or three times as long as the opportunistic method in order to effect recovery. Diday attaches great importance to the regulations of the patients regime in the widest sense of the word, and emphasizes that each individual has his own peculiar form of syphilis, because every one has his own mode of living. He also says that the mode of action of mercury is unknown, and denies its preventive efficacy. The fact that the procreation of healthy children by individuals suffering from latent syphilis is often secured by carrying out mercurial treatment, he explains not as a preventive, but as the removal of a morbid symptom."

H. Zeissl advocated views similar to those of Diday. He, however, outlined his plan of treatment from the standpoint that in many cases the remedies employed may have exercised no direct influence on the recovery of the disease, and that a large proportion of recoveries which have been credited to definite plans of treatment were largely the results of nature. Ziessl in his clinics followed largely the experimental line of treatment very similar to Diday's Opportunistic method. Ziessl thus found: "That recent syphilis yielded very rapidly to mercurial inunctions, sometimes even after from ten to fourteen treatments, and that in some cases the syphilides presented no change even after ten applications." He also found that the secondary form of syphilis, under the internal administration of iodine, often yielded within fourteen days. He also noticed that in those patients that were treated expectantly, even after the appearance of secondary symptoms, the eruption disappeared completely within a period of from four weeks to several months and that in very rare cases the syphilitic eruption disappeared spontaneously two weeks after its onset without any treatment.

Theories remained about the same for several years regarding the treatment of syphilis. New schools sprung into existence and offered many remedies, but results were unchanged. Since the discovery of the *Spirochaeta Pallida* by Schaudinn and Hoffman in 1905, and the discovery by Metchnikoff in 1903 that syphilis could be inoculated in anthropoid apes, rapid strides have been made, not only in diagnosis but in treatment as well. The real field of experimentation is open to the investigator; as a result detailed methods for the administration of mercury are being made, and, with some, very beautiful results are being accomplished.

Prof. Ehrlich is doubtless the greatest experimenter with the use of organic arsenical compounds of any one in the world today. Some of the earlier compounds of arsenic are responsible for the loss of sight, and for the death of not a few individuals both in Europe and America. I need not tell you of the exciting times following the announcement of Prof. Ehrlich that after 605 failures with the 606th attempt he had a compound, which he named Salvarsan, one or two doses of which would positively

cure syphilis at any stage. The delirium of the daily press, the hallucination of the syphilitic patient, and the nightmare of many physicians regarding the effect of Salvarsan for some time kept the medical profession in a fit of excitement equal to that of the small boy on circus day. Today, excitement has subsided as regards Salvarsan. The drug is being weighed, and as a **positive** cure is found wanting. Just as we are about to quiet down after a few years of nervous strain over the action of this new drug, Prof. Ehrlich again announces that he has the true cure, and has christened it Noesalvarsan, and in our quiet moments we are forced to ask the question, what next?

DISCUSSION.

The Chairman: This is an important paper and it opens up an important subject. Not long ago I picked up an old text book on surgery—it was not so old so far as knowledge is concerned, but it was published in 1886 and in looking over the same I came across the article on gonorrhoea, and that text book, which was an authority in its time, made the statement that the author did not think gonorrhoea was due to germs, because a nongermicide would cure it. That is the reason why so many unfortunates have to suffer, as a result of either ignorance or not proper treatment. We will have the discussion on the paper now.

Dr. Block, Kansas City: This is an important paper and it opens up an important subject. I listened to the paper with a great deal of interest, and in a general way it covers the subject. I am probably not so familiar as Dr. Day with the Biblical account of syphilis and gonorrhoea, but while he was giving us his authority, it occurred to me that there is a passage some where in Genesis which refers to the fact that prostitution existed at the time and with consequences like those we have now. I am referring to a passage which follows the destruction of Sodom and Gomorrah, where there was danger that the race would become extinct, and one of the daughters of Lot disguising herself as a harlot seduced the old man to have intercourse with her. There are many diseases of mankind that are coexistent with historic man and also the pre-historic man. Cures without number have been presented for our consideration and advice, and the results in those times were perhaps as good as they are today. Involving a race that might have been considered as free from a disease at that time, we can readily understand how until a certain degree of immunity is established the ravages would be great. By the repeated ravages a certain degree of immunity is established. I have heard the remark made, and despite the improvements that have been made the remark holds to a certain extent good today: If a man once had syphilis he would always have it, and if his ghost returned he would expect him to have syphilis. That is practically true today. To my own knowledge the same is largely true of gonorrhoea. From my knowledge and experience and observation I believe the ravages of the latter disease and the infections that are placed upon innocent persons, are much greater than syphilis. There is a certain amount of good in the application of prophylaxis. Not

long since I was discussing the question with a number of army officers. Two of them told me of the attempt that had been made in the Philippines to control it. The prostitutes were corralled and inspected and compelled to remain until the inspection was complete. The soldier was required to produce his bill of health when he presented himself for the exercise of that so-called pleasure. What you see in Europe is only a make believe. Here is a woman examined once a week or twice a week at the most. At the time she presents herself for physical examination she may be well, but the next time she goes, maybe within an hour, she contracts the disease. The other is the proper way. It did not last long. There is an opinion among people that we suffer the inflictions that nature has provided or that God has provided for our transgressions, in consequence of which when it got to the notice of our good ladies in this country they entered their protests and they abandoned the method and the disease has returned as a result.

Regarding a cure for gonorrhoea, I believe, for it has been my experience, that if these patients did not get into the hands of the doctors there would be a relatively larger percentage of cures than there are. It is a well known fact that a person suffering from gonorrhoea refuses to accept the treatment; refuses to go to bed and rest, because he does not like the comments of his friends. If the patient would go to bed and put up with the proper treatment he would get well and a larger per cent would recover.

As to syphilis, it is practically a curable disease; theoretically never.

This paper of the Doctor's is an admirable one, and I think we all enjoyed it.

Dr. Johnston, Lawton, Oklahoma: In regard to the fact that prophylaxis is the thing for us to study now, and the fact that in army practices the use of the method has lessened the percentage of gonorrhoea is what I want to bring out. I agree with the doctor in his belief that it is very likely we do not do the good we think we do sometimes in our treatment. The Doctor's paper was certainly very excellent.

Dr. Wallace, Oklahoma City: I want to compliment the Doctor on the paper. Now in regard to irrigation: It is all right if you know how to give it. I feel that irrigation helps all along. I believe that syphilis can be cured. I have given them the Salvarsan and along with it I have administered mercury. I am a firm believer in neosalvarsan now. I believe if you push it like the mercury you will get a cure, but to be safe it is better to combine the treatment.

Dr. Fisk, Kingfisher: Perhaps there is no necessity to set the Doctor right about the Scriptures, but he got the wrong man. It was not Lot, it was Judah, the son of Jacob and the woman was the wife of one of his sons. The story is all right except he got the wrong man.

Dr. Glascock, Kansas City, Mo.: It was Lot's daughter. If this brother will return to his Bible and brush the dust off he will find that is right. That she had a child by Lot. I am sorry my brother was not born in Kansas, or he would not have made the mistake.

We know that locomotor ataxia is due to the ravages on the brain cells. If the continued action of Salvarsan on the cells gets them so they will not perform their functions the question that arises in our minds is, what effect a large dose of arsenic has upon the cells, while the arsenic is not in as an injurious form as it might have been. I am convinced that after eight or ten years we will have a collection of cases that will surprise the medical profession. A drug so powerful as arsenic, and given in the large doses arsenic is given, I think, will increase the cases of locomotor ataxia. We know that the use of Salvarsan will not cure the cases; at least they keep bobbing up later. We all hoped it would do things it is not doing at the present time, and it is not along the line that we should anticipate a cure for syphilis, and in using a remedy that is so strong it is dangerous. Of course, the thing will quit leaking if you destroy everything that can leak. You could do that with the hot iron. If Salvarsan stops it by doing damage we cannot estimate at this time, we can only wait. We may find later on that the disease has been stopped, but in doing it we may have destroyed other things that will take numbers of years to estimate the damage done.

Dr. Block, Kansas City: I have had the impression during the last eight or ten years that there were only two men that differ from the remainder of you men: These men had not been created, but made themselves. One was the great Bonaparte and the other Mr. Roosevelt. The position occupied by the physician is about the same. When they do find a patient that recovers they think they are God themselves. If we were to study the question of syphilis successfully, we would have to attain double the age usually allotted to man. One doctor will treat a thousand cases of syphilis and probably after they have been treated once he does not get the opportunity to see ten per cent of the patients again. They pass into new hands and they are again 'new' cases; and the records are faulty. I think the same is true of gonorrhoea. If I followed the dictates of my mind I would treat them all upon the expectant theory or plan. We cannot do that and so have to go and treat it some other way. If you were to take a hundred cases of gonorrhoea and put them to bed, you would find that nature is a greater doctor than we are. I have lived through these theories for thirty years, and I have found that the theory found one year is condemned the next. Those of you that still have those exalted ideas regarding yourselves as therapists could be convinced differently if you were some years older.

Dr. Barker, Guthrie: I want to agree with Dr. Block in the treatment of gonorrhoea. The less you bother the more treatment you have. In my experience I have seen more get well without the local treatment than with it.

In regard to the Biblical discussion: Dr. Fisk may be right, but I do remember that Dr. Glasecock is right, although the girl did not disguise herself as a harlot; she got the old man drunk, which was an easier proposition for her.

Dr. Weiner: I want to relate an experience I had a few weeks ago while traveling in company with another physician. As usual with physicians when traveling together we were discussing medical subjects. He told me of some of his patients he had treated for gonorrhoea and related one case he had cured with one application of his remedy. He said he used equal parts of gasoline and chloroform. That is a remedy I had not heard of before.

Dr. Day, Oklahoma City: I am very thankful for the kindly discussion of my paper. I do not know that I can add anything to what has already been said.

I wish to state this one fact: That in the beginning the history of the early treatment of syphilis was with the use of mercury, and the experiments and results obtained from the use of mercury were only of interest that you might compare it with what we are today doing in the use of the arsenical compound. That those investigators came to the conclusion that mercury should not be given until in the tertiary stage or manifestations.

I am at the present time treating a patient who has had four doses of salvarsan. Two at Ft. Smith, Ark., and two at Dallas, Texas. When he came to me he had a return of the secondary manifestations of syphilis. It was only a delay in the development of the progress of the disease and not a cure he had. So what seems to us to be a cure today may prove tomorrow to us that such was not the case and we will by then see the defects. We are unable to follow our cases or we would be better able to tell more about them.

In regard to the Wasserman test or reaction. You must remember that it is absolutely useless to use it until six months have elapsed after you gave the mercury. The proposition of being in a hurry to get a negative Wasserman reaction only hinders us in getting results.

Just a word in regard to the cure of gonorrhoea: Since I have been limiting my work to these special lines and comparing results now with cases I tried to treat when I was a general practitioner, I have often wondered if we were advancing backwards. I used to think I could cure gonorrhoea, and I find some of those cases returning to me now that I thought several years ago I had cured, and I find on examination of those cases that what I had done was to relieve the actual and temporary manifestations of the disease and leave the hidden infection. I believe this method of drying up the discharge is only the physician's way to be sure he can collect his bill. When the physician can wake up to the fact, or the realization of the fact that a whole lot of the rigamarole of the treatments used today is detrimental to gonorrhoea we have made a step in the right direction.

INFECTIONS OF THE HAND.

Dr. John W. Riley, Oklahoma City, Okla.

Probably no surgical condition exercises the diagnostic and surgical ability of the surgeon more at times than the deep infections of the hand. It is the hidden battle between microbe and body protoplasm. At the beginning, we realize the seriousness of some of these infections and the serious deformity that may be caused, as the pathetically twisted claw-hand, and the consequent lessened earning capacity as a result thereof.

The acrimonious discussions that were waged before Sappey's brilliant investigation in 1876, to determine whether these infections were due to tendon sheath infection or an extension of the lymphatic channels, were soon settled and it was agreed that both parties were too radical in their claims, and that the infection could spread by either channel. As a matter of fact, acute infections of the hand may occur by three different channels.

1. Lymphatics.
2. Tendon sheaths.
3. Fascial spaces.

It is also true that we may have all three of the types in certain cases, i. e., a lymphangitis, a tenosynovitis, and a fascial space abscess; but in a majority of cases only one type exists; and again, any one of the three types may extend into the other.

It will be found that lymphatic infections follow a distinct anatomical and clinical course, capable at times of producing certain definite complications.

The tendon sheath infection pursues definite lines of invasion and the location of pockets of pus, when rupture occurs, can be determined and early incisions be instituted to prevent further extensions.

In regard to the fascial spaces, it has been demonstrated that there are:

1. Certain well-defined uniform spaces upon fingers, palm and dorsum of the hand in which pus can accumulate.
2. That pus may be spread from a given spot and involve certain of these spaces without involving the others.
3. That the pus from these spaces spreads along definite anatomical channels.

Unfortunately a snap diagnosis is often made and incisions hastily made that jeopardize at times the use of the hand and the life of the patient. This could be avoided if a little more care was taken to ascertain the nature of the infection and the location of the pus. Along this line certain points should always be remembered.

1. The area of the greatest swelling does not necessarily indicate the location of the pus. Swelling occurs where the loose cellular tissue is most abundant, viz., on the dorsum of the hand, while pus in nine cases out of ten is located anteriorly.

2. The site of the greatest tenderness most usually marks the location of pus.
3. Lymphangitis, tenosynovitis and fascial space infections usually exist as distinct processes. One type alone being present in any given case.
4. Treatment of each type is different.

LYMPHANGITIS.

Lymphangitis may be superficial or deep. When deep it may terminate in tenosynovitis or abscess of the deeper tissues. This complication, however, does not take place often. There is a marked redness, swelling and tenderness of the whole hand and arm, being most marked upon the dorsum. The patient is greatly prostrated and complains of headache, thirst, sleeplessness and fever, symptoms of systemic absorption; bright red streaks are seen running up dorsum of hand and arm. When they come from the ring and little finger, they pass through the epitrochlear gland before passing on to the axillary glands and it will be enlarged.

The lymphatics from the thumb and index are found wending their way along the outer and posterior surface of the arm to the axillary glands without the intervention of the epitrochlear glands directly, and some ascend in the delto-pectoral groove and empty into the axillary veins at the junction of the cephalic vein.

This trunk is found present in thirty-eight out of every hundred bodies and explains the danger of some infections.

Symptoms.—Upon examination we find absence of pain on extending fingers or thumb; absence of tenderness over tendon sheaths and the middle and thenar spaces; absence of bulging of the palm although the concavity may be lost. We see locally an area of suffused redness with a swelling of fingers involved, and considerable oedema upon dorsum of hand. This swelling varies according to the site.

The lymphatics pursue the shortest course to the back of the hand. If the infection occurs at the distal part of the palm the course will lie between the fingers.

TENOSYNOVITIS.

This condition is more difficult to diagnose and often leaves one in doubt as to whether or not he is dealing with a lymphangitis. The cardinal signs are:

1. Exquisite tenderness over and limited to the tendon sheaths.
2. Flexion of the finger. . . .
3. Marked pain on extending the finger and most marked at the proximal end.

The size of the wound is of little importance as a tendon sheath may become infected from a pin prick or an extensive wound. Upon examination, you will observe the swelling of the abutting sides of the adjacent fingers and dorsum of the hand. The whole hand is tender and slightly flexed, while the involved finger is uniformly swollen and flexed. Marked

pain is complained of when its tendon sheath is touched and this pain is most marked at the metacarpal phalangeal joint. This pain and rigidity of the infected finger is so great that the examiner has but little trouble in locating the trouble.

A marked difference is noticed between the rigidity of the involved finger and the simple flexion of the adjacent digitis. For instance, in the little finger one can diagnose an extension into the palmar sheath by this marked rigidity from tendon sheath infection.

An infection of the tendon sheath of the little finger may be localized to this digit or it may extend to:

1. Ulnar
2. Radial bursa
3. The forearm.
4. Fascial spaces in the hand—Mid-palmar space, Lumbrical.
5. Proximal interphalangeal joint or wrist.
6. Middle phalanx.
7. Rupture to the surface.

Extension into the ulnar bursa is not always easy to diagnose. There is general oedema of the hand, while the palm is full, it still retains its concave form and the greatest fullness is at the wrist above the annular ligament. The swelling here is not due to rupture of the bursa, but to tissues that readily distend while the tense annular ligament prevents further extension. The whole area is exceedingly tender at first but grows less so in a few days. The wrist is flexed and the thumb becomes tender and swollen from a juxta position of the sacs or an extension of the process into its sheath. The index and middle fingers remain unchanged except from passive processes. The arm above the wrist is swollen and the skin is of a bright red color. Pulse and temperature and systemic effect are not characteristic but similar to any infection.

When the infection begins in the tendon sheath of the thumb, it first extends into the radial bursa and it may then extend into the ulnar bursa. In other words, the process is reversed to that of the little finger.

When the infection begins in the sheath of the index, middle or ring finger, the signs are the same, but the paths of extension are different; that is, besides showing an extension to the surface at the proximal end of the sheath, involvement of the middle phalanx and proximal interphalangeal joint, it may extend to the lumbrical space on either side and then involve the adjacent tendon.

Extension of infections from ring and middle finger flexor tendon sheath involves middle palmar space. Extension of infections from index flexor tendon sheath involves thenar space.

The fascial spaces of the hand as demonstrated are:

1. Middle palmar space—lies between the metacarpals and the deep flexor tendons and extending from the middle metacarpal bone to the fifth metacarpal, and having extension along the three outer lumbricals into the web.

2. Thenar Space—is located in the thenar eminence. It lies entirely to the radial side of the middle metacarpal and upon the palmar surface of the adductor transversus muscle.

3. Hypothenar Space—is an unimportant intermuscular space in the hypothenar eminence. Pus in this space comes to the surface and does not burrow into deeper spaces.

4. Dorsal Subcutaneous Space—is an area of loose tissue over the extensor tendons of the back of the hand.

5. Dorsal Subaponeurotic Space—lying between the extensor tendons and the metacarpal bones.

6. Web Space—The web space, a subcutaneous space in the webs of the fingers.

Pus may be found in any of these spaces, but most frequently in thenar and middle palmar spaces, either as a primary condition or secondary to a lymphangitis, or more frequently from extension of a tendon sheath infection.

When pus extends into the forearm, it usually lies under the flexor profundus passing upward along the ulnar artery sometimes as high as the elbow.

The middle palmar space may be infected by extension from infection of middle, ring or little finger flexor tendon sheath, ulnar bursa, from infections in the lumbrical canals below the head of the metacarpals, osteomyelitis of middle and ring metacarpals, or rupture of a thenar space abscess.

Symptoms.—The concavity of the palm is lost and a slight bulging is noticed, tenderness appears early and is exquisite. It is limited to this space. The area between the heads of the metacarpal bones (the web of the hand) is swollen from extension of the infection through the lumbrical canals, the skin of the palm is red or pallid, the fingers are flexed and held rigid, increasing in rigidity from little to index, while the thenar space is oedematous.

The thenar space may be infected from index finger or thumb, osteomyelitis metacarpal of index finger or thumb, or secondarily from middle palmar space. Infection spreads more often from middle palmar space to thenar, than from thenar to middle palmar space. The swelling in this space is out of all proportion to that of the palm. The space looks as if a balloon had been inserted and inflated to its fullest capacity, the metacarpal of the thumb is pushed away from the hand, and the distal phalanx flexed, though not as rigid as in the tendon sheath infection of thumb.

The above picture is characteristic of thenar space infection.

In hypothenar space infection, the primary lesion usually gives a clue while the absence of swelling in the palm and fingers and absence of tenderness over tendon sheaths with ordinary symptoms of abscess leads us to a diagnosis.

The subcutaneous space becomes infected from osteomyelitis of the middle and ring fingers particularly.

The dorsal subcutaneous space communicates freely with fingers and the thumb. Pus may spread from middle palmar and thenar spaces, ulnar and radial bursa to forearm followed with marked swelling, redness and induration of the forearm.

A difference should always be noticed between the odema and the induration overlaying the abscesses, as thereby needless incisions may be avoided.

INCISIONS.

Kanavel has offered the most intelligent approach to deep pockets, with the best drainage and least amount of scar tissue.

1. Tendon sheaths are opened laterally on one or both sides of the proximal and middle phalanges. If necessary the two lateral incisions may continue over the interphalangeal joint.

2. The tendon sheath of the thumb may be split to within a finger's breadth of the lower border of the annular ligament without injuring the motor nerve supply to the thenar muscle.

3. The hypothenar tendon sheath may be cut from the base of the little finger up to the annular ligament.

4. The middle palmar space may be opened by Besley's method—that is, incising the lumbrical preferably between middle and ring metacarpal one and one-half fingers' breadths above the palm and then thrusting a hemostat between the deep flexor into the middle palmar space.

5. The Thenar space may be opened by making an incision through the dorsum or the radial side of the second metacarpal on a level with its flexor surface and opposite the middle of the bone; a hemostat is then thrust through into the thenar space, being careful not to go beyond the middle metacarpal bone and thus open the middle palmar space. It is not necessary to make an incision in the palm to open this space.

6. The combined opening of thenar and middle palmar space is accomplished the same as the opening in the middle palmar space, only the hemostat is pushed through the thin partition separating the middle palmar space and the thenar, into the thenar space and out through incision on radial side of second metacarpal.

7. The subaponeurotic space is drained by adequate incisions upon the dorsum over the interosseous spaces.

8. The Hypothenar space is drained as any localized infection.

9. Ulnar and radial bursa are drained by making an incision one and one-half inches above tip of ulnar on ulnar surface of forearm extending down to ulnar; a closed hemostat is thrust across the front of the ulnar and radius between the pronator quadratus and flexor profundus and a counter opening is made on radial side.

Drainage is carried out with either vaseline gauze or rubber tissue. Rubber tubing should never be used for this purpose.

DISCUSSION.

Dr. Long, Oklahoma City: I do not think it is right to stand on ceremony for some of these older men to extend a congratulation on the Doctor's paper on the hand infections, and the manner in which the infection travels. From January, 1911, until 1912 I did a large number of hand dressings, and the fact is easily demonstrated to any one who takes up such work and can see that which is done in an unsatisfactory way when you get large joints and infections that never can be overcome because the work was not properly taken care of at first. And no doctor should allow such conditions to occur if he has the care of the case in its incipency. I noticed some cases that had occurred in days gone by that did not occur during the time I had charge of the work.

These tendon sheaths: There is one question I want to ask the doctor, and that is, if these cases are caught in the condition he speaks of, in penetrating the sheath in the manner he speaks of, if the tendon adhesions can be avoided? I know of one case that was opened up by a doctor and it was a question to me if the condition could not have been remedied without the incision. I think the incision was on the dorsal side of the hand.

As is easily seen, the bones are closer to the dorsal side of the hand, so the swelling naturally occurs on the other side.

The Doctor covered the ground so well and has gone into it with the exception of the treatment, which his paper, of course, did not cover, that there is not much left to be said.

Dr. Horace Reed, Oklahoma City: The paper is complete in the aspects in which Dr. Riley has considered the subject. There is one thing that we must not lose sight of, however, and that is the prevention of the conditions requiring the opening of the inferior sheath which requires the work that Dr. Riley detailed. Infections of the hand always have a small beginning. Those injuries of crushing or the traumatic injuries are not infections to begin with, but may become so. The kind of patients that come to this condition are the ones that have trivial injuries; injuries so small the patient's attention was not called to it, and they suppose they have a felon or something like that, and it is trivial at first and they neglect them. Fortunately for the patient they do not neglect them until they get to those extreme conditions that require the opening of the sheath. Usually they will seek a physician before it gets that far. Now comes in the real work of the surgeon and physician, and that is the prevention of the spread of the infection. The hand is an active member of the body and is used perhaps more often than any other member of the body and that fact coupled with the construction of the hand shows that it needs rest when injured. I have seen physicians many times that would tie the hand up in a bandage and saturate it with some one cure-all solution and say they are getting the hand well. If you can put the hand absolutely at rest and keep it at rest you have accomplished about all,

and all this wrapping does is to make the patient think something is being done, and it also helps as a splint. It also helps you carry out the rest. That should always be given the infected hand. You cannot always do it, but if you can impress on the patient the necessity of rest you may accomplish it. When you allow the patient to go around the streets with his hand tied up in a sling, it is not rest. You should put them to bed and use whatever side issue necessary to impress your patient that you are doing something. If you will do that you will in nearly every instance stop the infection.

Dr. McNair, Oklahoma City: I believe from the man who has taught us so much about infections we can still catch at times gleanings of reasoning, because as you read his articles on these things he demonstrates and proves to himself by the use of many cases his truth that he afterwards tells us. Ochsner has demonstrated to his own satisfaction and in his clinics you may see it demonstrated many times, that the advantages of the large dressing in these injuries of the hand or hands is one of the most important things in their recovery. He tells us he has used the small dressing and seen the hand get worse and afterwards applying his large dressing and the same case improves. I have demonstrated to my own satisfaction that this is true. I remember the first time he impressed on me the injuries to the hand, was when I was taking clinical surgery from him as a student and the question came up as to whether I should amputate for certain injuries, and I mentioned the injuries of the hand where I would amputate and he showed me the fallacy of my statement, and how the hand would recover by reason of its large blood supply and with rest.

Dr. Long, Oklahoma City: Pardon my speaking again. There is one infection of the hand that has not been covered that is a little puzzling possibly when it occurs, and that is an infection in the pocket of the epidermis growing around the nails; an infection back under the skin at the root of the nail. The natural tendency is to cut the skin back and lay it open, which is an error to commence with, because the skin follows around the root of the nail and as soon as you incise into the unaffected space you lay open an area that is going to be a sore proposition to heal. If you will pry it open and put in a drain of rubber tissue the infection will clear up. You can do this by working from the nail.

I am glad the Doctor spoke of the large dressing. Now I believe the Doctor's purpose is to show where in making the incision you should make it to tap the collection of pus, and not simply through the skin or any way and between the bones and think you are going to get at your infection from any particular part of the hand. He has given the place where the pus is to be found, and the question would then arise as to an argument—and it could be a good argument—as to whether an incision is necessary at all. He is going on into the chronic condition, but the usual condition offered is not that far gone. I have used one yard strips of gauze saturated in any one of the solutions and with oil silk outside, and

I have had good results without incising at all. I speak of that because you may think it is not necessary to go in there, and unless the Doctor has got a method by which he can go in the hand and not get adhesions, I will continue to use my saturation of gauze.

Dr. Riley (Closing): I thank the gentlemen for the discussion of my paper. In reply to Dr. Long, about the adhesions: When you get an infection of the tendon sheath you are immediately going to have a destruction of the lining and maybe of the sheath, if not worse. As soon as the diagnosis is made you are going to have the condition we are trying to avoid, as a rupture of the tendon sheath and probably gangrene. The delay and procrastination in the work on the hand is what is making the souvenirs you see everywhere today; these crippled hands. As soon as you have an infection of the tendon sheath you should open. You need rest and drainage. The dressing will help the rest. You need not be afraid to open the tendon sheath. You will not get a stiff finger. Split it the full length if necessary. It is the delay in infections of the hand that gives you the claw hand, that a man will carry through life. You have an infection of the eponychium of the finger and it is under the finger nail and what you want is an incision outside of the nail. Turn your eponychium backwards and put your scissors under the loose nail and cut it off and the infection is well. Rest and drainage is what you want. I thank you, gentlemen.

VACCINES AND SERUMS—THEIR USES AND LIMITATIONS.

Dr. Benj. H. Brown, Muskogee, Oklahoma.

While the mass of work that has been done on serums and vaccines is enormous and the literature on the subject has assumed astounding proportions, two factors have made much of it practically valueless. The first of these is the proneness of investigators to permit enthusiasm to usurp the place of reason. It is an indisputable fact that most men are optimists, at least so far as concerns their pet hobbies. Most of them prove what they start out to prove.

The second factor is the pretty general failure to publish disappointing results. We are almost universally prone to it. One man, for instance, believes that a certain remedy is efficacious in typhoid fever. He uses this remedy in fifty cases and has two deaths, or a death rate of 4 per cent. Others have brought a series of fifty cases through typhoid under symptomatic treatment with comparable results, but, if they are wise, they say: "I have been lucky," and let it go at that. The physician who has used a new method, however, will be almost sure to publish his results and point with pride to his low death rate. Another may be obsessed with the same optimistic ideas as to the value of remedy "x." He, too, treats fifty cases, but, unfortunately, strikes a severe epidemic, and loses fifteen. Does he rush into print with this death rate of thirty per cent? By no means. He says: "The remedy is useless. What's the use of publishing such statistics?"

and forthwith stows the case histories in the remotest pigeon hole of his filing cabinet.

The literature being so voluminous, and much of it so confusing and contradictory, it has occurred to me that it will not be out of place to endeavor to present a brief review, drawn in broad lines, of the status of serums and vaccines at the present day.

Sera: A serum, in the ordinary acceptance of the term, is the fluid part of the blood, which may be unmodified, or "normal," or modified by certain constituents collectively termed antibodies. The anti-sera, for practical purposes, may be divided into antitoxic, bactericidal and cytolytic sera.

Normal Sera: To a student of current medical literature nothing is more striking than the unanimity of the reports of the use of normal blood serum in hemorrhagic conditions. This seems to be the most valuable contribution to seri-therapy of recent years. The pioneers in this field are Broca and Weil, who treated hemophiliacs with normal horse serum hypodermically, and J. E. Welch, of New York, who injected normal human serum subcutaneously in twelve infants suffering from hemorrhagic disease of the new born, with the result that all recovered from this affection, which ordinarily gives a death rate of from 60 to 80 per cent. Their results have been confirmed by numerous others. The treatment has also been used in hemorrhagic purpura, and both prophylactically and curatively in operations on patients suffering from cholemia. Normal human serum, animal serum, or antitoxic serum may be used, either subcutaneously, intravenously, or by local application.

While there is no doubt as to the efficacy of this measure in many hemorrhagic conditions, I have seen no reports of studies as to its *modus operandi*. Some suppose that the effect is produced by the supplying of a deficiency in the fibrin ferment.

Antitoxic Sera: Certain bacteria exercise their injurious influence on the bodily organism principally or altogether by means of soluble toxins which they secrete. As a rule they do not invade the body, but having intrenched themselves in some favorable location, there manufacture toxins which gain access to the blood. Endotoxins, or those which are released by the destruction of the bacteria, have little influence on the pathogenicity of this class of microbes. Immunity is produced in animals by the injection of these soluble toxins, resulting in the presence of the corresponding antitoxins in the blood of such animals. Their antitoxic serum is capable of neutralizing definite amounts of the toxin, the two forming a union comparable to the neutralization of an acid by an alkali, the resulting product being inert. The two typical and best known organisms which produce soluble toxins are the diphtheria bacillus and the tetanus bacillus.

The wonderful prophylactic and curative effects of diphtheria antiserum is a matter of household knowledge, as is the prophylactic value of tetanus antitoxin. The latter is capable of neutralizing the toxin that may be floating in the blood, and to a certain extent of wresting it away from

its early combination with the nerve terminals, so that we may hope for a variable curative effect from its administration in large doses within the first thirty-six hours after the development of symptoms. But later, after the toxin has intrenched itself within the axis cylinder of the nerve, although in so desperate a disease we are justified in continuing its use, it must be with small hope of thereby benefitting the patient.

Bactericidal Sera: Certain well known bacteria do not produce strong soluble toxins, their morbid action being due to endotoxins which are released in the body following the destruction of the organisms. This type of bacteria may be again divided into subclasses.

1. The first of these subclasses embraces those organisms causing diseases in which one attack protects permanently or for a long period, and in which convalescence is accompanied by the formation of agglutinative and bactericidal substances in the blood. The specific organisms of typhoid, bacillary dysentery, colon infections, cholera and plague belong to this type. 2. The second subclass embraces those in which one attack does not give rise to prolonged immunity. As a rule, the serum of convalescents from diseases caused by the typical organisms of this class, such as the streptococcus, pneumococcus, and tubercle bacillus, is generally believed to possess little or no bactericidal power. Contenders for the therapeutic efficacy of such sera as a rule claim that it is due to an increase in the opsonic index, or to the stimulation of phagocytosis.

The subject of antibacterial serums is so broad, and in many respects so little understood, that it can only be touched on here. Ricketts, to whose valuable book I am in the main indebted for my classification, writing in 1905, said: "It is common knowledge that bactericidal serums have not been successful curative agents, although in test-glass experiments they may be able to kill large numbers of organisms." Since then some progress has been made, but not a great deal, and it seems to be necessary to modify this statement in but one or two particulars. Flexner's serum is generally accepted by the best men as a specific in cerebro-spinal fever, voluminous statistics from various sources showing that the early use of the serum reduces the death rate to 25 per cent., from the 75 per cent mortality among those treated by other methods. There is also a pretty general agreement as to the curative value of antigenococcus serum in a certain percentage of cases of gonorrhoeal arthritis. Favorable reports are not wanting as to the value of other sera, as, for example, those of Chantemesse in regard to the use of typhoid antiserum and of other investigators who have been using antistreptococcus serum. But the various workers differ much in their estimate of the curative value of most such sera, and their final status is a matter for the future to decide.

The action of bactericidal sera is more complex than that of the antitoxic, two factors being necessary, namely, the bactericidal amboceptor and the complement. The amboceptor, or antibody, is the essential factor of the immune serum. The complement is a normal constituent of the blood, and is capable of uniting with various types of amboceptor. The office

of the amboceptor is supposed to be to join the complement to the bacteriums so that the complement can exercise its destructive power. The combination has been likened to a hand turning a key in a lock, where the lock represents the bacterium, the key represents the amboceptor, and the hand the complement. As a hand can turn many types of key, but there must be a mutual adaptation between key and lock, so within certain limits the power of union of the complement is general, while that of the amboceptor is specific for a certain organism.

The obstacles that confront us in the use of bactericidal sera have largely to do with the behavior of the complement. While it may be easy to obtain a serum rich in antibodies, there is often a deficiency of complement in the patient's blood, or it is not capable of uniting with the amboceptor, derived as the latter is from an animal of a different species, while, on the other hand, no feasible method has been found of introducing sufficient complement from without. Other considerations, such as the possibility of the deviation of the complement, or the formation in the body of anti-complements or anti-amboceptors give us pause, lest by our ill-advised efforts we may work a positive detriment to the patient.

From the standpoint of prophylaxis a number of effective sera have been obtained against the endotoxin producing bacteria. Aside from the plague serum of Yersin, which has been proven to have a high prophylactic, as well as a somewhat less curative value, the various sera seem to have been largely supplanted by vaccines for this purpose. The principal reason for this is that immunity produced by the sera has a duration of only two or three weeks, while that following the use of the vaccines frequently lasts for years. The excellent results from the preventive inoculation with typhoid and cholera vaccines may be cited in this connection. Of recent years the employment of the former in the United States army has reduced the incidence of typhoid to a small per cent of that formerly prevailing, and the death rate to almost nil among the inoculated.

Cytolytic Sera: Just as the inoculation of animals with bacteria causes the formation in their blood of bodies destructive to that particular bacterium, so their inoculation with foreign cells may produce antibodies capable of destroying the type of cell introduced. We are familiar with this principle in the use of hemolytic serum in the Wassermann reaction.

In addition to the objections pointed out above against the use of bactericidal sera, we have here the additional disadvantage that we can not be sure of the specificity of the action of the serum on closely related cells. For instance, we may well fear that a serum which will exercise a deleterious influence on the cells of an over active thyroid may not stop here, but may attack other organs indispensable to the welfare of the body.

Cytolytic sera can not be said to be past the experimental stage, and their future usefulness seems to hang on a very slender thread. Some effort has been made to utilize them clinically, most prominent among which may be mentioned the use in exophthalmic goiter of the serum introduced by Beebe. Rogers, in the American Journal of Surgery, December, 1909,

reports 900 cases treated by this method, of which 15 per cent were cured, 60 per cent benefitted, and 8 per cent died. Inasmuch as these statistics are no more convincing, if as much so, as that of internists, among them Forcheimer, it is not probable that sero-therapy will secure many converts from among those who use established methods of treatment in this disorder.

Vaccines: As generally used, the term bacterial vaccines is synonymous with bacterins, and applies to a suspension in normal salt solution of dead or avirulent cultures of bacteria. It is also loosely applied to a variety of bacterial products, the composition of some of which is known and of others not, the oldest, as well as one of the least understood, being anti-smallpox vaccine. Etymologically and rationally the word should be restricted to its original meaning, but its misuse is so general that it seems to be irrevocably fixed in medical terminology.

Some of our most efficient prophylactic agents are included under the head of vaccines. Besides vaccination against variola, the value of which is recognized by all except a comparatively few persons of warped mentality, the stamp of universal medical approval has been placed on preventive inoculation against hydrophobia, as well as against typhoid, cholera, dysentery and plague. As mentioned above, however, the serum seems to be more available against the last named.

When we come to the curative value of vaccines there is far from being a general agreement. The best clinical opinion, as a whole, does not differ materially from that of the most careful and competent of the laboratory workers, and may be summed up as follows:

1. Vaccines seem at present to have very little place in acute and generalized infections. The body, being already engaged in a struggle against an excess of toxins, it seems highly illogical to aim at a cure by heaping poison upon poison. In this connection perhaps more favorable reports have been recently made on the use of vaccines in typhoid fever than in any other general infection. This enthusiasm is far from being shared by all in a position to observe the effects of the vaccine, and the remedy is repudiated by Frank Billings and others among our best known internists.

2. The efficacy of vaccines in certain localized infections, especially when tending to become subacute or chronic, is generally recognized. In this connection one of the best summaries in recent literature is that in the Practical Medicine Series for 1911, Vol. I., quoted from Wilder Tiletson, assistant professor of medicine at Yale. He says that vaccines have gained their greatest triumph in infections with the staphylococcus, being of especial merit against carbuncles and furuncles; that reliable observers are of the opinion that pneumococcus vaccine hastens the healing of sinuses due to localized pneumococcus infection; that gonococcus vaccine is of value in joint affections; that a symptomatic cure can usually be had from vaccine treatment in cystitis and pyelitis due to colon infection, but that the bacilluria usually persists. J. Whitridge Williams denies that superior re-

sults are obtained by vaccines in colon infections over those by other methods. He also sees no place for the use of vaccines in puerperal sepsis, general or localized.

So far the claims for vaccines will be admitted without much contention, but, if we go further, we immediately fall into difficulties. Thus to local streptococcus infections some assign a place in vaccine therapy, while others are strenuous in their opposition to this belief.

3. As a rule autogenous vaccines are to be preferred. But stock staphylococcus and gonococcus vaccines may be used until others are available, and are frequently very efficacious.

4. Where possible, the use of vaccines should be resorted to only after an accurate diagnosis of the infecting organism. Thinking men can not too strongly indorse the words of Stoner in this connection, even though it works a considerable pecuniary loss to certain pharmaceutical houses. Writing in the American Journal of Medical Sciences for February, 1911, he says: "While stock vaccines are undoubtedly useful in certain conditions, their injudicious use in the hands of careless physicians and unskilled diagnosticians has probably done more to discredit bacterial therapy than any other one thing. The practice of injecting various kinds of dead bacteria or mixtures of vaccines in conditions of obscure etiology in the hope that one or the other may do good, is to be severely condemned." The same criticism is of course true for the "metabolic" products of bacteria, or any other of their derivatives capable of producing a reaction or any other visible effect.

Tuberculin: The controversy over the value of tuberculin is almost as animated today as it has been at any time since Koch's original pronouncement in 1890. Tuberculin does not seem to be growing in favor, either in surgical or medical conditions. Some excellent men, among whom we may mention Trudeau, remain unshaken in the belief that it is a valuable therapeutic agent, while others, whose words carry equally as much weight, for example, Osler and Strumpell, are skeptical to the verge of pessimism. The general status of these preparations in surgical tuberculosis seems to be very well reflected by the remark of Dr. S. J. Hunkin of San Francisco, at the meeting of the American Orthopedic Association at Washington in May, 1910. After listening to a lengthy, and by no means harmonious discussion, he is reported as saying: "The results of the use of vaccines in the treatment of joint tuberculosis seem to depend on the temperament of the men employing them."

Even those who favor the use of tuberculin are unanimously of the opinion that a very careful selection of the cases is necessary, as well as very close observation after treatment is begun. They agree that this is possible only in a well-regulated institution, and deny that there is any field for tuberculin therapy by general practitioners.

What should be our attitude toward the "cures" for tuberculosis that from time to time are reported in the medical press backed by an imposing array of favorable statistics? Most of these are modifications of tuberculin,

but many, such as Spengler's I. K. and Marmorek's preparation are based on the principle of passive immunity. We can only say that cures for tuberculosis have been making their appearance at the rate of from three to a half dozen a year for the last twenty years, and have been making their disappearance at about the same average rate. Medical literature is dotted with the grave stones of these discarded remedies. Under each lies a darling hope, that in the eyes of its author was destined to grow up to a strong and vigorous manhood, and to batter the dragon down. Sometimes a few, sometimes a crowd, of admirers vied in rocking the cradle, and in predicting for the newcomer a brilliant future. But, turned out upon the world, they have each in turn been unable to survive the strong, hot glare of science, and one by one they have withered away and died. Our faith tells us that some day one stronger and more worthy than the rest will survive. Will it be the latest? We don't know, but many disappointments have made us skeptics.

And our views on this subject may well be the same as those on the subject of vaccines and sero-therapy in general. What the men of wide experience and knowledge agree is worthy we may use. Where the master minds are not unanimous, we may well pause. Most of us have little faculty for experimental therapeutics and little time for the extended observations and investigations necessary before any deductions can be made in so abstruse a subject. In the meantime we would do well to consider the propriety of heeding in this, as well as in more unimportant matters, the poet's advice:

"Be not the first by whom the new is tried,
Nor yet the last to lay the old aside."

THE FEE-SPLITTING EVIL — THE SURGEON AND THE GENERAL PRACTITIONER — THE GENERAL PRACTITIONER AND THE SURGEON.

Dr. David Ap Myers, M. D. C. M., Lawton, Oklahoma.

To begin with, I wish to say that I shall call a spade a spade. It was Shakespeare who said: "Oh, why rebuke you him that loves you so?" It is evident that Bill Shakespeare had the present "fee-splitting" evil in mind when he wrote those lines, for he knew that sooner or later there would be much "wailing and gnashing of teeth" and much rebuking—the surgeon berating the general practitioner for demanding and too often getting the required split, and the general man berating the surgeon for trying to keep it all after getting his business and allowing him a very generous slice of the first few fees.

I know not whether the other states in the United States are afflicted with the "fee-splitting" parasite, but I can vouch for Oklahoma. We have it in a most virulent form. And like all other parasitic life it lives and thrives where there is the most filth. I do not mean this to be construed that Oklahoma has all the bad ones in the practice of medicine and surgery, nor do I care to have this construed as a general reference to the

profession in general. If there are those that differ from the statements made in this paper, I hope they will have the courage to stand up and let this Association hear from them. Not that I mean that there may not be a much better solution of the matter than the one set forth, or that I am a criterion on the subject. The main object of this paper is to get the subject matter before this Association and get the ideas and views of those who have had the parasite to deal with. It is an axiom among the physicians "out in the sticks" where I practice that the closer you get to a certain city in the state of Oklahoma, and the longer you "shop" your case, the larger grows the "split."

Within the last thirty days I have had a physician in my office whom I have known for some time and often wondered why I had never received any of his work. His story was as follows: "Doctor, I have been sending my cases to a certain city for operation and I thought I would drop in on you today to talk about a case I have that needs an operation. The expense of going to this city is somewhat greater and the danger of transporting cases is much increased by the distance, so if we can come to some agreement about fees I will be glad to send my surgery to you. He then proceeded to tell me that he often got as much as sixty per cent of the fee for bringing the case to the city. Now this doctor had driven thirty miles to find out how much he could get in the way of a "split" closer home. What do you suppose was the matter with the child?—an intussusception of the bowel.

If there is any one condition in surgery that requires prompt attention, it would be my guess that the above case would be of such a variety. Still here was a doctor "shopping" for a "fee-splitting" and his patient dying. I remarked to the doctor among many other things that "fee-splitting" was not the rule among the best men, and he remarked right back that the "general practitioners" would see to it that "fee-splitting" would not be abolished." This type of "fee-splitting" parasite is one that is entirely removed from the type that comes into existence because some surgeon splits a fee with him and thus gets him in the habit of thinking that it is the proper thing for him to demand it. The first type is a mercenary doliars and cents doctor, pure and simple; the second type becomes such from being taught that it is right, and while they are both to blame, one is to blame because he is naturally a parasite and the other because he has been taught to be one. The blame for both species lays with the surgeon and not with the general practitioner. If they were not given the first "fee split" there would be none of the first variety. You cannot blame the general man. It is easy money for him and he will naturally take his patients to the man who will give the most money for them, provided always he is the kind of doctor that cares not for the welfare of his patients, either physically or financially.

I do not desire to have the general practitioner think I consider him alone in the field of "fee-splitting" parasites. The surgeon who gives a "split" is as much and, to my mind, more of a parasite than the general man, for he is the one who can cure the disease if he will. Most crimes

are committed at night—under cover of darkness. So it is with the fee-splitting evil. It goes on, and sometimes by first-class operators. It is hard to catch up with them, but when you do publicity is the cure for such an evil. How do you think a prospective patient would think about a doctor who would deliberately sell him to the highest bidder, knowing that the extra money he was being charged was given to the doctor who had him in charge—not as fee for services, but as a fee for the act of bringing him to that particular surgeon? He will figure that if the surgeon can afford to give the doctor \$75 for bringing the case to him that the surgeon can afford to do the work for \$75 less than he is being charged. When a doctor comes to your office seeking a split in fees and does not get it, then proceeds to take the patient on and continue to shop with them, then I would deem it the province of the surgeon consulted to tell the people concerned that the reason the case was not left in his care was not from any inability to properly perform the work, but because the physician in charge did not think that he was getting a sufficient fee for bringing the case, and that the one evil that surgeons had to contend with was the fee-splitting evil. If you cannot educate the doctors, you can educate the laity, and I assure you they will educate very readily in cases of this kind, for the education touches them in a spot that is very vital, namely, their pocket-books. If you cannot get to the patient or their friends you are, of course, powerless except to talk to the doctor who is asking the split. More and more papers on this subject should be written. In this way good will be done and men converted from both sides of the controversy. I venture to say that if I were to ask every surgeon in this Association to stand up who was in the habit of splitting fees, that there would not be a single response. If I were to ask the same question of the general man, there would not be a response. Yet I am morally certain there are men somewhere in this good old Oklahoma state who do these things, and do them as a matter of business. Something you are ashamed to acknowledge you do is usually not the right and proper thing for you to have done. Therefore I say PUBLICITY is the cure for the evil. It will not stand the light of the patients' scrutiny. After all is said and done it is the patient who is the most vitally concerned, therefore he should know what is being done for him in all cases. The man who does not split fees will say the other fellow gets the cases. It is true he does in many instances. He will also tell you that the patient does not know who is or who is not a capable surgeon, nor does he know that he is being "peddled," and his life endangered for the sake of a few paltry dollars. Education will cure that evil. When the laity begin to understand that a certain surgeon splits fees and are educated to know why he splits them, just so soon will the sun of that man's popularity begin to set. The laity have been educated along other lines by the judicious use of printers' ink and the application of a few good common sense arguments by word of mouth. Why could they not be educated along this line.

In the practice of law, attorneys have a word by which they designate a certain class of lawyers. If there was a word in the English lan-

guage that would as appropriately fill the bill in reference to a certain class of surgeons who wilfully offer and give a split in their fees for the sake of getting a case, I would be more than pleased to apply the term and properly label all such. That word is "shyster." The laity avoid a shyster lawyer. They can be taught to avoid the same class in the practice of medicine and surgery. I remarked early in this paper that I would be glad to have this paper discussed freely. If there is one present who will arise and defend the fee-splitting evil, I shall be glad of it and will do my level best to answer all his arguments. If I cannot do so I am sure there are men in this Association who have had the parasite pester them so many times that they would be glad of an opportunity to find a champion of their cause and get a chance to relieve a much overburdened bosom of an accumulation of words and thoughts on the subject. If you do not believe that last statement of fact, please arise at the proper time and champion the cause.

Not a truth has art or science been given,
But brows have ached for it, and soul toil'd and striven;
And many have striven, and many have failed,
And many have died, slain by the truth they assailed.

There are two sides to every controversy and the general practitioner has been very much abused in times past as well as at present in regard to the way he has been treated regarding his surgical cases. Here is the story of the general run of cases as they are brought to the shrine of the great and mighty surgeon. After due delay in waiting at the outer door of the sanctum sanctorum, or the holy of holies, you are ushered into the presence of the Great Surgeon.

"Good morning, doctor."

"Ah, let me see! I cannot recall your name."

"I am the doctor that brought you that case of surgery last month from Podunk."

"Oh, yes; I remember you now. That was the case in which I made that great diagnosis for you after you had been puzzled so long over it. So much easier, you know, when you see those rare and interesting cases every day as I do. Have you a patient with you this time?"

"Yes, Doctor."

"Well, bring him in and I will tell you what is the matter and what he needs."

Patient comes in.

"Dr. Big I, this is my (notice the accent on the MY) patient, Mr. Promptpay."

"Glad to know you, sir. Just remove your clothing and get up on the examining table and I will tell you what is the matter and what should be done in the matter." (Several minutes of percussion and questioning, and then several more minutes of deep silence, accompanied by many contractions of the learned brow and an expression of deep study. This is followed by a long discourse on what "I saw the last time I was in

Vienna," and what Prof. This and Prof. That has to say on the subject of such ailments as to your patients.)

Finally you hear this: "Please be at the X. Y. Z. hospital at 7:30 promptly tomorrow morning and we will operate. Fees in such cases are \$350. Would you like to witness the operation, Doctor? If so, you will be allowed to be in the operating room. I shall have several other cases on hand and I should be glad to have you witness them."

That may sound a little doubtful but it is true nevertheless. I know because I am a general practitioner and have had the experience. Morning comes and you and your patient enter the hospital and are received very curtly. In due time you are hustled into a gown, stood up in a corner near a red hot radiator and told to stand hitched. You do. If you have never seen the inside of the "holy of holies" before, you are duly impressed and return home in awe and reverence, very much subdued in spirit and very much DISSATISFIED WITH YOUR LOT IN LIFE. If the awe and reverence last long enough you will bring your next case to Dr. Big I. If you let a little common sense sink into your system, you will take your next case to Dr. Consideration, who will endeavor to treat you like a human being and as a fellow-doctor. You realize before you go to Dr. Big I that you don't know as much as he does, but then you don't want everybody else to know it also. What you do want them to know is that you are not a surgeon but a general practitioner, and that you want to be treated as such. Now, Dr. Consideration is a good fellow and he gets all your work in the future. One day you find him out and you take a case to Dr. Needs Biz, across the hall. He is also a good fellow and treats you just as well as Dr. Consideration, and when he collects his fee comes and hands you \$75. By a proper and decent treatment of the general man in the first case, the profession would have been saved another case of "fee-splitting."

In addition to doing some general work, I do a little surgery. I have been confronted with the fee-splitting evil. I have conquered it, at least to my own satisfaction and in entire accord with my surgical and ordinary conscience. If I am wrong I shall be glad to be put right, but until I shall find a plan that will work better than the one I am now following, I shall be hard to convince.

First of all I try to make a friend out of the doctor who brings me a case. I try to place myself in his position, and that is not very hard work, for I often refer cases to other men and I know the attitude I have toward them, and realize the way I should like to be treated. Acting accordingly, I proceed to treat my doctor friends as I would wish to be treated.

I do not say: "Let's find out what is the matter. I ask HIM what is the matter. If he says he doesn't know, then I tell him that together we will attempt to find out. In other words, until I am proven wrong I assume that his diagnostic ability is as good as my own.

I try in every way to give that patient to understand that his doctor's attention is as essential to the proper welfare and care of the case, except as to actual operation, as is my own. I ask the doctor and the patient whether or no he (the doctor) came with the patient at their request and find out if they have been under treatment before coming. I then proceed to tell the patient or his friends that the family doctor is entitled to a fee for his absence from business, on account of being in attendance on this case; that the fee I have established is \$25 and expenses per diem; that I shall see that the doctor is paid that fee, and that I will be guided by the wishes of the doctor in charge of the case as to whether I charge that fee in with my own or whether he chooses to settle with them direct. In case the doctor expressly requests that I shall make no charge for him—that he desires to collect his own fees for attendance on the case and time and money spent in coming with them, and in the proper spirit and proper way seeing that they get the proper surgical attention—then I proceed to tell the patient that I am not including a fee for the family physician, but that whatever agreement they make with him is foreign to any fee they may pay me.

If a doctor calls me over the phone, or sends me a patient, I take advantage of the first opportunity I have to thank him for his kindness. In the meantime I try to do the best work I know how for his patient, and send them home to the family doctor for after care and attention.

I consider that I owe no man a cent for the reference of a case, unless he spends time and takes the trouble to come with the patient at their request. If I am called to do a piece of surgery in the home and away from the hospital, I use the doctor in charge in the work unless I carry an assistant with me. For this I allow him the same fee I would pay my assistant, namely, \$25 for major work and in proportion for minor work. In all cases I see to it that all financial transactions are open and above-board and with the full knowledge of the patient.

In my work I have yet the first case to meet where by this method I have not sent the patient home in full confidence with his family doctor, and have the first dissatisfied doctor to deal with. I have one man that I do work for who insisted the first time I operated for him that I collect a fee for him. I refused, but told him I would, however, tell the people he was entitled to a fee; that he chose to collect it from them direct, and that any charge he might make for his services was entirely a matter between themselves; that my fee for the operation would be so much if I did not have to pay the doctor for assisting me; that if they desired I would make them a fee which would include what I would pay for his assistance in the case and for the operation only. They chose to settle direct with the doctor. Ever since I have had that arrangement with him and I do not neglect to tell the patient that they are to pay him for his services—that I am not including it in my fee.

You who still believe in "fee-splitting," listen to the words of French:

In gall and wormwood, tinctured with a curse,
Bitter with gold low-filched from work's scant purse,
Salt with the tears through toil-strained eyelids shed,
Acrid with sweat greed-gathered from the dead,
Tainted with blood war-sucked by ruthless might
To scepter Wrong upon the grave of Right;
In this hell-brew let's spill libation,
With wish that swift and sure damnation
May blast the brain and hand that wrote
The dastard sentence, "Labor is a commodity."

DISCUSSION.

Dr. Wheeler: I am like the Irishman. I think that paper is too good for discussion.

Dr. Lain, Oklahoma City: I wish to discuss a question that perhaps all present are not familiar with—the last revised principles of the American Medical Association. This question came before the House of Delegates last year and was discussed until time was called and a committee was appointed on resolutions and to make such changes as desired. I will read the sections referred to: (Reads articles referred to—Section IV., Article 3; Section II., Article 5.)

Dr. S. H. Landrum, Altus: We are familiar with the proper ethics but we don't all use them. If I cannot do the work I refer the patient to some man that can do it. If a patient is well enough to go some distance he does not need me. If he is not able to go, employ a nurse, which you can do cheaper than you can a physician. If I cannot do the work, he pays the man who does it. He owes me nothing. That seems as simple to me as any other proposition.

Dr. V. Berry, Okmulgee: This fee-splitting is just the result of a commercialism of the medical profession. I want to say frankly that I have been held up. I have two patients that I did an operation for once. They said: "Well, we can get 50 per cent of that fee by going to another town and G— d— if you get another cent out of us." There is another fellow who holds you up in a different way. Oklahoma is not the only rotten state in the Union. One of the physicians in St. Louis that I know splits fees 50 per cent. I think in six years I have taken one person to St. Louis and one to Kansas City. The one I took to Kansas City I was forced to take. A horse run away and caused a fracture of a very prominent woman in our town. Her husband knew a very prominent physician in Kansas City. Two physicians were called. One I called because he was near at hand, I was a friend of the family. He unfortunately took the view that this could not be attended to in our town. I did not object to her going to Kansas City when I found the husband wanted her to go to this surgeon. I told him I would go if he would pay me for my time. When I got there the doctor took me in a taxicab to the hospital, sent the patient in the ambulance, and on the way he felt me out to see if I wanted a fee. When I got into the hospital he treated me just as Dr. Myers said the great physician treated the little man. When it came

to taking the plate off he came down to our town and left the impression that I could not have done it.

I had another case of a man who was rated at over a million. He wanted to go to St. Louis and he wanted me to go with him. He paid me fifty dollars for going with him. When I told them I did not want a division of the fee it astonished them. It is just commercialism. It is not only in Oklahoma but every state in the Union. The surgeons of today of any standing that do not do it are going to lose a certain percent of their clientele. We are up against this proposition and must find some way out of it.

Dr. F. H. Clark, El Reno: It is a question that affects the vital interest of the profession, and there is not a man but what has had the same experiences as these men who have spoken. I have been in the same position as Dr. Berry and lost the patients. Some demand the splitting of the fee. I grant you that the surgeon has been to blame in a great measure. I recall very well when in Kansas City some fourteen years ago that when a man begun to offer cases to you, it was understood that they expected something for the benefit of their influence, and that has grown steadily. I only desire to ask: How can we correct this evil? In Minnesota today a man who gives or receives a fee is dismissed from the county and state societies, and since Minnesota has taken that stand it has not had half the difficulty it had before. Missouri has been mentioned as doing the same. Those giving or receiving a fee should be removed from the county association and the state association. The family physician has not been paid all he should be paid. I believe the solution Dr. Myers has given is a just and sane solution. If the family desires you to collect a fee, collect a fair fee. We must put a penalty on them, and until we do it there is not a man but what has a physician in a neighboring city who will take his case.

Dr. L. H. Huffman, Hobart: I have enjoyed the paper of Dr. Myers very much, and the question of running a hospital is very perplexing. Now, there is no question but what the surgeon is to blame, because there could be no fee-splitting unless the surgeon does it. I think we should work among the surgeons.

Dr. J. F. Kuhn, Oklahoma City: I want to say that the solution offered by Dr. Myers and the one I follow has been suggested to me by one of the counties of the state—that the editors of our local newspapers be asked to write an editorial, perhaps to be corrected by the county medical society, but at least to make this come under the head of an editorial in a newspaper. Publicity is the only thing that will stop this evil. It may not correct the evils if they are committed in the dark, but by giving it this publicity I believe we will come nearer the solution of this problem.

Dr. Horace Reed, Oklahoma City: Just as far as a pendulum swings in one direction it is bound to swing in the other direction. Early in my

experience in surgery I was told that all the towns divided fees. In fact, every one did it. Being young and somewhat innocent, I did it. Soon I saw the evils of it. Now I have gotten to that point where I would not go so far as Dr. Myers says. I would not collect fees. Now I limit myself to surgery and I do not come in contact with the general practitioner. I only want to do what the general practitioner cannot do and is not prepared to do, and I want to charge my fee for it. I like to do work for a big man—a man who thinks something of himself, a man who likes to charge what they think their service is worth. I do not think any man should humiliate himself to ask money. Never yet have I accepted one cent, or checks offered me, and I thank my stars that I never have.

Dr. J. M. McComas, Elk City: From the time of Judas down to the present I believe we have found men in all ranks who were willing to betray confidences for money. I think where the man journeyed thirty miles he should have given the man the whole fee and cured the child.

Dr. F. P. Davis, Enid: I do not know very much about surgery or fees, for I never get fees, but I have learned a great deal in that way. The fee-splitting question is very easy to solve for the reason that you can revoke their license. If you take the license away it takes away the fee-splitting. I mention a little instance where, a few days ago, a physician agreed to take a case for \$50. He called up another man about it, then called up the party and said he would do it for nothing if they would pay the hospital fee. This man called up another man and told him and he told the party he would pay the fees. Too many surgeons in this state are men who were total failures in any other place, and if a man falls down and stubs his toe the first physician that gets to him will rush off and have an operation for appendicitis before night and get his fee.

Dr. Walker: I think this is drawing out to be pretty long. It is a condition that we always have with us. We have it with us in every state of the country. It is a matter of education. It is just like getting liquor out of the state of Oklahoma or some other state. When you get them educated as to the effects on the human system then you have results. Whenever we get the doctors to realize the dangers in fee-splitting, then you can get at the dangers of this fee-splitting. We have a county medical society in our county. Every legitimate man in that county belongs to that society. We have them where we can manage them. If you do not have them where you can manage them in your county then you have some man who splits fees. They live right below Shawnee and go to Sherman, Texas. We passed that resolution in that county and they know it would not do. As long as the big cities like Oklahoma City, Muskogee and Tulsa have those fellows who are doing unethical business, it is sure to be done. That is the condition that exists. I know men in the cities and I know men who are sending their cases. Ask the doctors in our county what per cent we give them.

Dr. Williams: I wish to take the side of the general practitioner. I did not hear Dr. Myer's paper but know it was good. Now I have been in the general practice for some time and I will not say whether or not I have had some one split fees, but I will say this, that as the general practitioner does not receive fees it is the fault of the surgeon and not the general practitioner, and if we would revoke the license of these men who split fees it would not be long until this evil would be abated. I wish to say that this is one of the best sections I have seen on surgery for many years and I would suggest that if you educate us then it would be probable that there would be more surgeons in the next session than this year.

Chairman: Dr. Myers, will you close your paper?

Dr. Myers: You know what the small boy said when he went to the circus and saw the animals: "Some one stirred up the animals." That man does not practice surgery like I do in the sticks. I do not have a hospital and we are not big enough to start one and have them sent to us. Mrs. Jones is taken sick; they do not have the money, but can get \$200 at the bank. We cannot do it there and it has to go to the hospital. There is not a nurse we can get to go with the case. They would charge you \$25 for going. As a consequence this doctor has got to go with that case. Is there any reason why he should not have the money for that case the same as if he went to that house and stayed with that case? He is entitled to that amount and I still contend that it is a reasonable amount for the doctor and he should have it. When I go to a man's town and take a nurse with me I have to have two men. Is there any reason why I should not pay them? I do not see any reason why I should not give the twenty-five dollars for assistance as well as you would for the operation. Now some of you doctors have been just a little bit rabid. Dr. Walker spoke about having the Pottawatomie county medical society with him to prove his assertion. I do not know whether he meant I could not do so. There are several men here today from my county who could testify. Dr. Williams said the surgeon was to blame. He did not hear my paper.

PROGRESSIVE PERNICIOUS ANAEMIA.

Lea A. Riely, Oklahoma City, Oklahoma.

Progressive pernicious anaemia is the term usually applied to that severe and rare form of anaemias first described by Biermer in 1868. It is a disease of the blood characterized by a faulty production (hemogenesis) and a progressive destruction (hemolysis) of the red corpuscles. In addition there are advancing anaemia, apparent preservation of superficial fat, a lemon-yellow color of the skin, retinal hemorrhages and a tendency to the development of sclerosis of the spinal cord. The marrow of the long bones shows red patches throughout. The fat is of a yellow color and the muscles are a peculiar bright red. All the viscera are poor in blood, pale and at times shriveled. The liver may give a reaction for iron (Siderosis).

I am more inclined to think of this disease not as a distinct idiopathic clinical entity, but merely a grave form of secondary anaemia which may result from any one of the most severe causes, because we are able to find the same blood picture and other pathology in connection with cancer of the stomach, bothriocephalus and other intestinal parasitic intoxication following certain severe hemorrhages and pregnancy, also intercurrent with syphilis and tuberculosis, and where it apparently resulted from an extensive atrophy of the coats of the stomach and intestines, associated in some instances with well-marked lesions of the sympathetic plexus. There are those who believe in specific progressive primary anaemia in which severe anaemia appears without any assignable cause and without any other primary organic affection, and in most all cases advances steadily to death. Perhaps we have to deal with a purely endogenous disturbance of the blood life or with anomalies of the internal secretion of cell life somewhat like the continued muscle waste that occurs in progressive muscular atrophy. There are quite a few cases of this kind which come to autopsy, and it must be confessed that we have about as little definite information of this disease as about the etiology of chlorosis. The cases run no definite course and the most critical study of them shows no evidence of any acute infective agent. The course is characterized by a series of exacerbations and mitigations of symptoms called crises, in which during certain periods of time the blood picture and clinical finding got better and worse. The longest intervention of good health between crises is reported by Cabot as five years and the largest number of crises is supposed to be five, while the case may terminate fatally as the result of one crisis.

My reason for taking up this subject is because I have had five of these interesting cases within my own practice within the last four years and have seen several cases demonstrated and the autopsies of two during the past summer. I feel that I can no better take your time than the narration and discussion of one case first, as follows:

Mr. E. P. H., married, 61 years old, ranchman, 145 pounds.

Cabot and Plummer both seem to think that our trouble is most likely to attack country people, especially those working around hay, than city people. Zurich, Switzerland, is supposed to have the greatest amount of this trouble around it and there the inhabitants are most all engaged in haying.

Father and brother died of typhoid. Mother of complications. One sister died of cancer of the stomach, which may throw a suspicion on the diagnosis of our case, thinking he may have had a similar trouble, which we cannot disprove since it did not come to autopsy. Eighteen years ago he was operated upon for hemorrhoids.

His previous history is negative until eight years ago, when his tobacco nauseated him, which continued until two years ago. While in Texas he noticed that he could not taste his potato. His bread and meat became very repellant to him. After staying in Hot Springs for several days

his taste returned while eating potato. Sore mouth and bad teeth, to which William Hunter has drawn special notice, is believed by him to be connected with the etiology of the disease. A diffuse hyperaesthesia affecting especially the tongue, with a bright red puffy appearance. Several of the patients complained of this symptom very early in the course of the disease before any other discomfort was felt. Another case I had began the symptoms with tingling in the fingers, arm and forearm and severe spells of indigestion and diarrhoea. In many cases we have no symptoms referred to spinal disease except numbness, tingling or other abnormal sensations in hand and foot.

In June following the December, he returned to Hot Springs because of loss of taste and sudden weakness, when he was treated for intestinal trouble and jaundice. On going home he was sent to Mayo's for an operation for gall stones, owing to his color and slight pain in side. Now this same symptom of pain and jaundice was present in another case of mine and came near to an operation for biliary trouble on account of it.

The Mayos kept him under observation for three weeks and said blood examination revealed pernicious anaemia and that he would live only a few months. He then went to Battle Creek, where from August 1st to December 15th his red blood corpuscles went from 35 to 84 per cent and he was feeling well and strong and that lemon-yellow color gave way to a more pinkish hue.

March 1st he began to get weak, so he went back to Battle Creek, where they put him in a chair in absolute rest, but blood went down from 34 to 30 per cent and then 25 per cent, but in three weeks strength came back suddenly and by May 25th blood came back to 77 per cent. He went home feeling strong and well again and rode twenty-five to fifty miles per day for five weeks attending his cattle. He went back to Battle Creek with 38 per cent red blood corpuscles and built up in ninety days to 53 per cent and left, still weak, for Oklahoma City. I found his pulse large but soft and compressible, 90 beats per minute, blood tension 110 (Jeneway). Heart slightly dilated but no murmurs, carotids throbbed, no capillary pulse, tinnitus aurium. Dyspnoea on exertion and extreme weakness of legs were most noticeable symptoms. A very interesting and characteristic condition of the skin was its absence of perspiration, but dry and oily feel. Several small petechial hemorrhages under skin and quite a few within the mucous membrane of the mouth. Skin in one case I saw was bronzed and sunburnt looking, possibly due to arsenic he was taking.

In spite of the severe anaemia the subcutaneous fat preserved the usual rotundity. Voracious appetite, giving way later to anorexia. No nausea, no Hel. in stomach contents, obstinate constipation, nothing abnormal about repeated gross and microscopical examination of feces, liver slightly smaller, spleen normal, urine normal in quality and quantity except for indican and urobilin due to blood destruction, slight edema of ankles which varied from time to time until death. Temperature normal but varied from 98.3-5 to 103 during the severest part of the crisis. The

fever is probably a ferment intoxication from the destruction of red corpuscles. Tenderness over sternum and tibias and vague pains in the legs Patella tendon reflexes gone, pupils react normally to light. No glandular enlargement.

Cabot says that curiously enough the oxygen exchange which we should suppose would be greatly diminished is actually increased in some cases and is rarely below normal.

When these crises supervene it is usually impossible to trace any cause for them. They are generally resistant to any form of treatment and seem to run a self-limited course, leaving the patient exhausted. They are often very severe and in one of these cases the patient lay with temperature 102 to 103, dry tongue, unconsciousness, involuntary urinary and fecal evacuations, red blood count 790,000 and most profound weakness, when he suddenly began to improve and in seven days his blood count doubled and his other bad symptoms were relieved. During this time the megaloblasts, or large nucleated reds, disappeared from the blood and white cells remained unchanged. In most cases the number of the megaloblasts increases as the symptoms are aggravated and diminishes in the remission of the disease.

In Cabot's cases 150 of 715 did not consult a doctor until count reached below 1,000,000. Some patients die with comparatively slight reduction of corpuscles, while others are able to do hard work despite a much greater impoverishment of blood, so it is not the anaemia that is pernicious.

Quinke's oft quoted case still holds the record of 143,000 per c. m. There is no other disease in temperate climates which often reduces the blood corpuscles 2,000,000, while in tropical countries intense anaemias due to malaria, hookworm and other affections, are quite common.

An examination of our patient's blood reveals the following: Haemoglobin 60 per cent; color index 2; erythrocytes 1,533,000, or 30 per cent; polymorphs 76 per cent; lymphocytes, small 21; lymphocytes, large 1; eosinophile 1; marked poikilocytosis; 4 nucleated reds; 1 megalocyte.

In pricking the ear for our specimen, it seemed like the blood was scarce, and when a drop did come out it seemed to have no cohesive power to the skin, but dropped off immediately and when it was collected on a bibulous paper it seemed to have a watery, colorless ring around the red center.

The clotting power in this case was normal though very slow in many cases. Had been a few hemorrhages from bowel in this case, but not more than one ounce of blood. A peculiar feature of the blood was the lack of cells forming in rouleaux and the great difference of the size and shape of the cells and coloring properties of the haemoglobin within, called polychromatiphilia. The blood is pale like a light claret and the corpuscles usually fill the drop and do not present the symptoms of a hydraemic blood.

For the purpose of increasing the area of blood formation in the course of anaemia, the yellow bone marrow changes into red in various

portions of the bony framework of the body. This process, however, is insufficient in pernicious forms of anaemia; in fact, in some cases the change into red bone-marrow is entirely exhausted. Such cases of severe pernicious anaemia have lately been described by the name of the aplastic (Ehrlick) form. As the nonnucleated reds which are destroyed are now replaced by new ones, their number must diminish greatly, but also nucleus containing reds must be absent in the blood as new ones are not formed in sufficient amounts. Nucleated red corpuscles are of two types: (1) Normoblasts and (2) megaloblasts. Ehrlick describes the normoblasts as red cells of normal size which contain a small nucleus which stains intensely and is identified especially with cases of secondary anaemia, while on the other hand megaloblasts are much larger than normal and possessing a very large, pale stained nucleus and is characteristic of the foetal type of blood formation, so it points to an earlier and less fruitful type of blood formation. These megaloblasts are typical of pernicious anaemia and are more common in the blood than the normoblasts. It may take continued search, but you will eventually find them. Ehrlick describes a case of fatal post-hemorrhagic anaemia in which he could find no nucleated corpuscles. Autopsy showed that no regenerative effort has been put forth by the bone-marrow. There was no transformation of yellow marrow into red (lymphoid) marrow, such as is almost invariably the case after traumatic or experimental hemorrhage. The presence of nucleated red corpuscles usually indicates an appeal to the marrow for more corpuscles and hurried and faulty production on account of increased demand.

The white cells show various conditions according to the form and severity of the anaemia. In severe pernicious anaemia they are generally diminished, while in secondary anaemia increased. There is a decided percentile increase of the leucocytes in pernicious anaemia compared with the polynuclears, so that the proportion of both varieties of leucocytes (normal 3 to 1) may be one to one or even may be still further attended in disparagement of the polynuclears. This fact is of great importance in a diagnostic respect, as in doubtful cases it facilitates the recognition of pernicious anaemia in general and especially the differential diagnosis accompanied with atony of the mucous membrane of the stomach and insufficiency of the gastric juice secretion and the anaemia dependent upon gastric carcinoma.

Post Mortem Findings: Anaemia of all the organs and the hemorrhages from the capillaries that are always present, though they vary in amount and localization. Siderosis is always found, i. e., an abnormally increased amount of iron in the internal organs, especially in the liver, spleen, bone-marrow and lymph glands. This increase of iron is proof of the increased destruction of red corpuscles.

Fatty degenerations are found quite often in the muscles of the extremities, of the trunk and conspicuously of the eye. A fatty degeneration of the heart muscle is quite marked. The fatty degeneration of the arterioles and capillaries is interesting because it occasions hemorrhages in the

internal organs. These clots organize and remain as pigmented membranous spots in the meninges. In the brain itself the site of the hemorrhage is marked by a collection of pigment with vacuolization, edema and diminished affinity for carmine stains. Practically all spinal cords show lesions on sectioning while not giving evidence in a clinical way. The regions of the cord especially affected are the cervical and dorsal, decreasing progressively in intensity the lower down you go. The favorite seat of the trouble is in the Goll and Burdach columns. The disease may be confined to this locality and it is always more severe than elsewhere.

The great majority of writers on the subject agree in considering the lesions as a manifestation of toxæmia, therefore similar to the lesions found in diphtheria, pellagra, ergotism and diabetes.

The whole gastro-intestinal tract shows a thinness, smoothness and transparency. At times this is seen only in the stomach. In other cases the wall of the stomach is tough and opaque from interstitial hyperplasia.

Microscopically we may find: (a) fatty degeneration of secreting tubules; (b) complete destruction of epithelium with reactive hyperplasia of interstitial tissue; (c) the whole glandular mucosa may be gone, leaving only a lining membrane of flattened epithelium and reducing the thickness of the wall to one millimeter; (d) overgrowth of connective tissue in mucosa and submucosa, especially the latter. Its vessels may be thickened and tubules are compressed and distorted as in ordinary interstitial gastritis; (e) degeneration of motor nerves of the intestines and of its muscular layer. All the changes have been observed in diseases which have run their course without extreme anaemia, e. g., mammary cancer, chronic lead poisoning.

DISCUSSION.

Dr. Rucks, Guthrie: I had a case along the line of the Doctor's paper. The case was called to Oklahoma City with a letter asking for a differential diagnosis. He got in the hands of a chiropractic and was there ten days. I went down to see him at the request of his son and found him in a very anemic condition. I found his blood in a very low condition and with an enlarged liver. I had no hesitancy in diagnosing it pernicious anaemia. The patient is a farmer. There are many things the doctor brought out that are of interest to me.

Dr. White: This is a very excellent paper and a very pertinent subject. I agree with the doctor partly. The classification of most diseases to a great extent is not right. It is only a little while since we referred to dropsy as a disease, and now we know that it is a manifestation of one or more different conditions, and that it is simply a manifestation. As to the cause of pernicious anemia, if we consider it a disease, I cannot but believe that it is a toxemia or a result of toxemia. I do not know that I can add anything to the paper. As to the interval between the attacks, I have in mind a case whose symptoms disappeared eleven years

ago and have not returned since. It extended over a period of three or four years. The patient was seen by a good many doctors; never had any malaria and it has never returned.

Dr. Moorman, Oklahoma City: I want to express my appreciation of the doctor's paper. I am interested in this subject at present. I have been recently observing a case of pernicious anemia. The patient or the subject, a woman, looks like she has the jaundice; a sort of a lemon discoloration of the skin. One thing that I have not heard mentioned is the fact that in this case they complain of almost a constant throbbing of the head, especially when the patient is indoors. This is relieved when she is carried outdoors.

Dr. Hume: Many years ago I was associated in the treatment of a case of this kind. This patient had a very sore mouth. She complained more about that and about her weakness than anything else. She was very much prostrated and very weak, while she did not seem to suffer much. Her color was a lemon color, and under her eyes and about her nose she had a place on her face that was almost green. I just wanted to speak of this. She spoke of the sore mouth and the color and the great weakness attending the case. After some months the woman proceeded to recover and moved out of my field of vision, and I knew nothing more of her.

Dr. Riley: I am certainly very thankful to the section for the discussion. I believe there are many cases of pernicious anaemia that we do not notice, and I believe there are many cases of secondary anaemia that we do not call secondary anaemia. The cases it has been my fortune to see have been, with two exceptions, males. One was a woman that was beyond fifty; had a tape worm when twenty. The worm was eradicated and she had digestive disturbances for twenty years, and then she had this anaemia.



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EDITORIAL**THE IMMUNIZATION OF THE TUBERCULAR.**

Dr. Von Ruck and his assistants, in his research laboratory, in Asheville, N. C., not long since presented to the medical profession their developments in a very important phase of the protection of children and infants from tubercular infection.

Dr. Von Ruck premises that the greatest obstacle to the control of tuberculosis and the prevention of its spread is the fact that it is well developed before it is recognized; he asserts that many of the vaccines and serums used in rabies, typhoid, cholera and similar diseases are principally preventative in character and action and do not avail after the establishment of an acute process, and he assumes that in order to gain headway among the tubercular that its early recognition or treatment before inception, must be the order of the day.

In May, 1912, Dr. Von Ruck reported in a paper before the Chicago Medical Society, the result of seven hundred vaccinations on children and adults. He makes the positive assertion that in all cases the vaccine used induced bacteriolytic power to the blood of vaccinated persons. The con-

clusion of Dr. Von Ruck in this matter has been attacked on the one hand and upheld on the other and it seems that a sufficient time has not elapsed for the general practitioner to judge.

Almost co-incidentally, Dr. C. A. Julian reported to the North Carolina Academy of Science that he had vaccinated 393 children at the Baptist Orphanage in Thomasville, N. C. Dr. Julian finds that in the non-tubercular, there is no reaction from its use and that the reaction among the tubercular is very slight indeed, and that in no case does the vaccinated subject suffer any ill effects.

In the tubercular subject, the reaction varies somewhat with the individual's characteristics, but he considers that a reaction in such cases is diagnostic of the infection. His table shows that all such cases were followed by rapid improvement in the color, skin condition, weight and mental condition; that the improvements were so marked as to attract the attention of all the observers. An elaborate system of body weight was kept in 109 cases for a period of fourteen months after vaccination. It was noted that the positively tubercular child gained twenty pounds, the probably tubercular 13.10 pounds, and the normal 8.8 pounds in fourteen months.

It is probable that the result of these investigations and this report will be far reaching beyond the conception of any of us. It is said by many to be the most advanced step ever made in the control of tuberculosis.

COMPULSORY INTERNESHIP.

The Council on Medical Education of the American Medical Association, among other reforms recently demanded, have suggested that one of the requirements of graduation should be that of compulsory internship for at least one year in a hospital. Their figures indicate that among the better class of schools graduating about 700 men recently, and inquired into lately, 70 per cent secured and filled internships and that provision should be made for the remaining minority.

There is no question in the minds of those conversant with conditions that the recent graduate is badly handicapped by lack of practical training in clinical technique and that the nature of his years of study has rendered him more of a theorist than a practitioner and that his mind often exaggerates the lesser affairs and minimizes the greater to the detriment of his work. Practical hospital work for a time would greatly overcome this and would give the beginner such confidence and poise for his life work that the time spent would be one of the best investments possible for every one.

PROTECTING THE COAL MINER'S HEALTH

By a very heavy majority the voters of the State have repealed a provision of law enacted by the last legislature which prohibited the "shooting off the solid" of coal in mines. The operators, in seeking the legislation, alleged that the process prohibited was very destructive to the

coal and produced an interior grade; the miners alleged in their printed argument to the people, aside from charges that the law had the effect of further creating and aiding an existing monopoly in the coal business of the state, that the existing demands of the law were very harsh to the miners, that the undercutting demanded by its terms caused the miner to have to lie on his side in the mud and water in many instances, that the veins of coal pitched at such acute angles and were given to slides so much that the lives of the men were imperiled. Generally the sympathy of the individual voter was with the miner in his contentions and there seemed to be a disposition to repeal the law more on account of the damage its enforcement might do his health than for any other reason.

THE JOURNAL OF CLINICAL MEDICINE AND LANPHEAR.

Readers of the Journal will recall that Dr. F. R. Wheeler of Manford had a communication in the June Journal concerning the Journal of Clinical Medicine and the supposed connection of Dr. Emory Lanphear of St. Louis with Clinical Medicine. A letter from Dr. W. C. Abbott, editor of Clinical Medicine, states that for some time Dr. Lanphear has not been connected with Clinical Medicine and that they should not be held responsible for the acts of Dr. Lanphear.

We take pleasure in calling the attention of Oklahoma members of the medical profession to this phase of the matter. Dr. Wheeler wrote his letter in good faith, with no desire to injure the Journal of Clinical Medicine, but rather to voice the sentiments of the general practitioner on fee splitting, of which Dr. Lanphear seems to have gone all comers "one better," and the illusion in the letter to Clinical Medicine was due to the former connection of Dr. Lanphear with that publication, which in no way should be held responsible for his acts.

THE SOUTHERN MEDICAL ASSOCIATION.

One of the rapidly growing independent medical organizations of this country is the Southern Medical Association, which has lately through its representatives visited Oklahoma and enrolled a large number of Oklahoma physicians as members. This organization is to be congratulated on its decided stand for right on many of the fundamental principles of both medical organization and medical journalism, noteworthy among which is the positive requirement that no member be accepted or enrolled as such without verification of his membership in his state association and his remaining in that category. In the official journal of the organization, The Southern Medical Journal, will be found no advertisements nauseating to the medical eye, no space filled by matter which is refused admission to ethical medical publications as a general rule. One of the cardinal requirements in this respect is not to accept any advertisement not acceptable to the Council on Pharmacy and Chemistry of the American Medical Association and this requirement is adhered to both in practice and spirit.

High priced medical publications of metropolitan centers, carrying at their masthead medical names well known over the land, may well take a lesson from this stand of the Southern Medical Association, and performing the functions they should perform eliminate from their pages the matter of the notorious fraudulent advertiser or nostrum of quackery. So long as they are given space in respectable medical publications, their acceptance will be continued by the less influential and less discriminating publication and the physician easily influenced will continue to lend support to that which should be heartily condemned.

Witherspoon of Nashville, Dyer of New Orleans, Dowling of Louisiana and the South and West at large and Searle Harris of Mobile are to be congratulated on this splendid organization and publication and their stand for decency on one hand and opposition to commercialism in medicines on the other.

GENERAL NEWS

Dr. C. V. Tisdall of Hammon, Okla., has removed to Elk City and formed a partnership with Dr. Tedrowe. They will operate the Frances Hospital.

Dr. D. D. Weiser of Alden has located in Apache.

Dr. L. C. Kuykendall of Atoka has removed to McAlester and formed a partnership with Dr. Hartshorne.

Dr. J. A. Gregoire, for many years located in Cheyenne and Guymon, has moved to Hoisington, Kan.

Dr. Roscoe Walker, a son of Dr. Harry Walker, one of the oldest physicians in Oklahoma City, recently completed a two years' internship in the New York Postgraduate and has returned to his home.

Dr. M. A. Houser of Tulsa has returned from an extended stay with the Mayo's in Rochester.

Dr. J. R. Hamil of Guthrie has sold his property in that place and is now living in Kansas City.

Dr. Leila E. Andrews and Miss Andrews of Oklahoma City have returned from a visit to their home in Indiana and the lakes.

Dr. D. D. Howell, Nowata, and Mrs. Howell recently returned from Chicago where the doctor attended the Postgraduate.

Dr. L. L. Bunker of Laverne had the misfortune to lose his home by fire recently.

Dr. Oliver Bagby of Vinita, with a number of friends and relatives, is spending the summer in Colorado.

Dr. C. M. Bloss of Okemah has been attending the Chicago Postgraduate.

Dr. C. M. Morgan of Chandler and his bride have returned from Colorado, where they spent their honeymoon.

Dr. W. T. Howell of Duncan spent a part of August in Colorado Springs.

Dr. A. B. Chase, Oklahoma City, made an automobile trip to Denver, where he will attend the Knight Templar Conclave.

Dr. Thos. M. Berry of Hominy is in Chicago attending a meeting of the Federal Life Insurance Club.

Dr. N. H. Lindsay of Pauls Valley reports three cases of pellagra in Garvin County.

Dr. B. W. Freer of Nowata has moved to Fort Smith, Arkansas.

Drs. F. B. Fite and J. L. Blakemore will soon leave for New York, where they will do some postgraduate work.

The Nowata County Medical Society, holding its monthly meeting the first Thursday evening of each month, was recently given a rare treat by the president, Dr. Wm. Narin, in a paper on some instances in his thirty-six years of practice.

Dr. A. M. Thornell, a massuer, who, it is said, was recently convicted of practicing medicine illegally in Childress, Texas, has removed to Frederick, Oklahoma, for the purpose of establishing himself in that place.

Dr. V. Berry of Okmulgee and **Oliver Bagby** of Vinita have been appointed on the board of trustees of the Vinita Hospital for the Insane. Dr. Berry is the new member and Dr. Bagby succeeds himself on the board.

Dr. J. B. Murphy, health officer of Payne county, has established a philanthropic record in a new manner. He recently waged war on cats in his city, offering twenty-five cents for each dead feline. The offer was a success, the first day netting a crop of twenty-five.

Dr. C. E. Frost, health officer of Stephens county, recently entered the daily press for the purpose of calling attention of the people to the existence of infantile paralysis and the means on its prevention. He especially called attention to the habitat of the fly and warned the people against it as the cause and asked every one to co-operate in the prevention of the disease.

Drs. W. B. Crudington and G. L. Lanius were recently arrested in Durant for violation of the statutes in that they were practicing medicine without license. After giving bond in the sum of \$500 they returned to Denison, Texas, not completing the three days' trip of "great benefit to the citizens of Durant." A constable of exceptional good health decoyed the "doctors" successfully. Calling on them, his case is said to have been pronounced most serious requiring \$39.65 for medicines and treatment. The doctors were given an opportunity to spend some of their easy money with the legal fraternity of Bryan county.

The physicians of Roger Mills county organized a medical society on July 15th. J. P. Miller, Cheyenne, president; Dr. White, Durham, vice president; V. V. Grant, Roll, secretary; Dr. Wallace, Cheyenne, treasurer.

Alfalfa County Medical Society held a meeting at Goltry July 2nd. A symposium on "gastro-intestinal diseases of children" was had and generally participated in by the members present. Drs. Rhodes and Kiebler entertained the visitors and their wives. The next meeting will be held at Lambert, September 3rd.

NEW BOOKS.

Laboratory Methods, with Special Reference to the Needs of the General Practitioner. C. V. Mosby Company. Cloth \$2.50. This little volume comes as a decided boon to the man with but little time for laboratory work. The type is remarkably clear and readable and while the various divisions and subdivisions are so arranged to give the worker the information he desires in the shortest possible time of study. The scope covered is fairly large yet is so briefly and concisely arranged that there is no waste space or tiresome details.

This book should prove of decided interest to the physician who is already doing work in this field and should be a spur to those who have neglected this important branch of diagnosis.

WANTED—Nurses to take training in 3-year course. School acceptable to Oklahoma State Board. Pay \$5 per month first year, \$7.50 per month second year, \$10 per month third year. For particulars and prospectus, address Superintendent of Nurses, El Reno Sanitarium, El Reno, Oklahoma.

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John W. Duke, Guthrie, Oklahoma, 1913-14-15.

NECROLOGY COMMITTEE.

J. B. Smith, Durant, for three years, 1912-13-14.

A. D. Young, Oklahoma City, for two years, 1912-13.

Geo. A. Boyle, Enid, for one year, 1912.

STATE BOARD OF MEDICAL EXAMINERS.

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Next Meeting

Address all communications to the Secretary, Dr. J. W. Duke.

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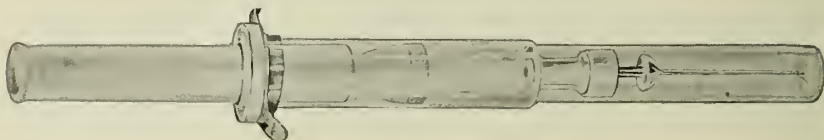
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TETANUS ANTITOXIN

BEWARE OF TETANUS ABOUT THE 4TH OF JULY!

This dreaded disease has been most prevalent after 4th of July celebrations, complicating gun shot wounds, even though very trivial.

TETANUS ONCE DEVELOPED USUALLY KILLS.



THE MOST IMPORTANT USE OF TETANUS ANTITOXIN IS FOR ITS PROPHYLACTIC IMMUNIZING PROPERTIES. IT HAS BEEN EXTENSIVELY USED FOR THIS PURPOSE IN MANY THOUSANDS OF CASES ALL OVER THE WORLD, AND IT IS NOW RECOGNIZED AS ONE OF OUR MOST VALUABLE AGENTS.

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Many strains of Bacteria have been carefully selected for specificity. The emulsions have been carefully prepared, eliminating all extraneous influences.

Supplied in hermetically sealed glass ampoules, the safest method of distribution.

Our vaccines cost 50c per dose—twice that charged by other Laboratories. We realize, however, that RESULTS, and NOT PRICE, must be the consideration.


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Oklahoma State Medical Association.

VOL. VI

MUSKOGEE, OKLAHOMA, OCTOBER, 1913

No. 5

DR. CLAUDE A. THOMPSON, EDITOR-IN-CHIEF.

THE SURGICAL TREATMENT OF CANCER OF THE LOWER LIP, WITH A REPORT OF 199 CASES.*

E. H. Beckman, M. D., Surgeon to the Mayo Clinic,
Rochester, Minnesota.

In considering the subject of cancer and its treatment, one must necessarily take into consideration certain facts. Cancer in the United States as well as in other civilized countries is apparently on the increase. If it is not actually on the increase, it is certainly true that an increased number of cases are reported to the various Boards of Health and an increased number of deaths are attributed to its cause.

In frequency tuberculosis and cancer are often compared. The anti-tuberculosis campaign is largely responsible for the present decrease in tuberculosis. A similar movement directed toward educating the public in the present knowledge of cancer would undoubtedly produce similar results.

We are still ignorant of the cause of cancer, but this does not prevent us from knowing a great deal concerning its manner of growth or how to cure it in the early stages. A cancer on the surface of the body apparently never develops except at a point subjected to continuous irritation for a considerable length of time. Cancers developing in cracks in the lip, about warts and moles or the edges of ulcers are familiar to every physician. There is much evidence to show that they develop in other parts of the body only at sites of prolonged irritation. As friction develops heat in machinery, so prolonged irritation develops cancer in the human body. Consequently every source of irritation should be eradicated from our bodies since they are fertile soil for the development of the disease. All cancers in the early stages are localized to small areas and while still localized can nearly always be cured.

*Read before the Oklahoma State Medical Association, Enid, May 13, 1913.

Our present knowledge relative to the cure of cancer is about as follows: There is no medical cure for cancer and the doctor who treats a patient having cancer as a medical case and endeavors to cure him by drugs not only accepts a fee from his patient for which he gives nothing in return but in addition takes away that patient's best chance of recovery by allowing the disease to spread while he is watching for results.

Paste containing arsenic is one of the oldest methods of treatment for cancer. Arsenic has no selective action for cancer but has some affinity for pathologic tissues, largely because they contain more water and have less vitality than normal tissue. Its use is confined principally to cancer quacks who apply it for money instead of results and who cannot differentiate a lipoma from a malignant growth. People submit to its use only through ignorance.

The Roentgen ray has been tried in thousands of cases of cancer with doubtful results. In a cancer situated beneath the skin or on the mucous membrane its effect is worse than useless, since it does not cure and gives the patient and also the physician a false sense of security. The treatment does, however, often relieve the pain in rapidly growing cancer. It stimulates the formation of fibrous tissue and so delays dissemination. Small, superficial cancers of the skin can be cured in this manner, but there are other methods of treatment which are more efficient, more rapid, and do not carry with them the danger of an X-ray burn. Radium, which seemed to hold out so much hope as a cure, although having been tried for several years, is still of doubtful value. The one method of treatment which gives results sufficient to actually class it as a cure for cancer is surgery. It should be remembered, however, that it is not surgery alone but **early** surgery which gives the results. Other factors being equal, the number of surgical cures are in direct ratio to the stage of the disease.

It should be impressed upon the people that it is the disease and not the treatment which is dangerous. As has been stated so tersely by one of my colleagues: "The danger is not from operation but from delayed operation."

As I stated in a previous paper, the three important factors which contribute to the cure of cancer of the lip by present-day surgical measures are: (1) The opportunity for an early diagnosis, (2) the slight tendency for the growth to form metastasis in vital and deep-seated parts of the body, and (3) the accessibility for removal of the primary growth and the lymphatics first involved after the disease has progressed beyond the primary focus. Cancer of the lower lip is ideally situated for an early diagnosis. The patient is aware of a lump or an ulcer which does not heal in the very earliest stages of the disease. While one can be almost positively certain in regard to the diagnosis in most of these conditions, the only absolute proof is a microscopic examination by a competent pathologist. The day has passed when it is necessary to wait for glands to become involved or to try out the effect of potassium iodide on

these cases. Any physician in America, no matter how far from the regular centers of population, can take a specimen, send it to a pathologist and get a telegraphic report within a week. The important thing in these cases is time if we wish to cure our patient. The only cases that are hopeless are those who have delayed so long that an operation is no

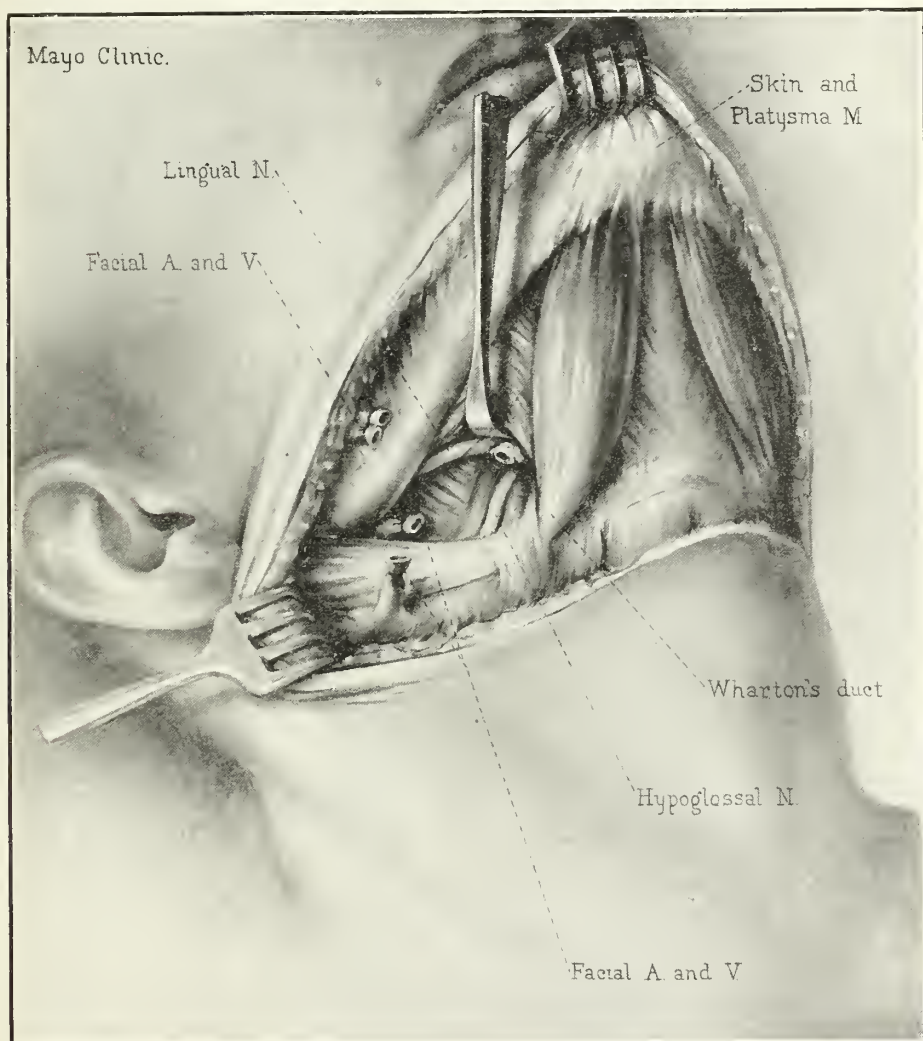


FIGURE I. Dissection of submental and submaxillary triangles for epithelioma of the lower lip.

longer advisable. A study of 4500 cases of cancer of the head and neck traced in the literature for Crile showed that in less than 1 per cent secondary cancer foci had been found in distant organs and tissues. That is to say, in cancer of the head and neck, death almost always occurs by local and regional development of the disease. The collar of lymphatics

in the neck forms a picket-line through which cancer is rarely allowed to pass. Every part of this lymphatic chain which surrounds the neck is easily accessible and can be removed with impunity. The medical profession have too long believed that cancer of the lower lip is not as malignant as cancer in other parts of the body. At the Mayo Clinic we have made it a practice for a good many years to do a radical operation on every case of any type occurring in this situation, no matter how early, provided the patient's condition would warrant such an operation.

The drainage area of the lower lip has been so carefully studied by Poirier, Cuneo, Kuttner and other observers that one knows definitely the lymph nodes which are first affected after the cancer has progressed beyond a local disease. The submental glands, lying in a triangle bounded by the anterior bellies of the digastric muscles and the hyoid bone drain the central portion of the lower lip. The submaxillary group, which drains the remainder of the lower lip as well as the cheek, lies in the submaxillary triangle. It sometimes happens that the submaxillary lymphatics on a side opposite the cancer will become involved. This rarely takes place, however, but one must remember that when the regular lymph channels are blocked, whether by cancer or inflammation, the lymph stream may flow in any direction similar to the blood, being taken up by the collateral circulation when the main trunk of a vessel is ligated. For these reasons it is advisable in every case to remove the lymphatics on each side at the primary operation. This should include the submaxillary salivary glands also, not because they become involved with cancer but because it is impossible thoroughly to remove the lymph nodes and leave the submaxillary salivary glands. After the glands from one side have been removed they should be examined immediately and, if found involved, the dissection should be carried down that side of the neck, so as to make a block dissection in which case the lymphatics removed must include both the anterior and posterior deep jugular group. If the glands on both sides in the submaxillary region be involved with cancer, nothing short of a block dissection on both sides of the neck is permissible.

The principle underlying the cure of cancer of the lower lip is the same as that involving the cure of cancer in other parts of the body, that is, the primary growth along with the glands into which the area of the growth drains must be thoroughly removed. There is one difference which we have observed in this connection. A cancer of the lower lip is either a local growth or else a metastasis in the adjacent glands. We have never observed a cancer occurring in the lymph vessels between the original growth and the neck; consequently, it does not seem necessary to remove the lymph vessels along with the glands and the primary growth. This is fortunate both for the patient and the surgeon, because it lessens the danger of infection from the mouth into the deep tissues of the neck. The original growth, however, should be removed with a wide margin, the wider the better.

In cases where only the submaxillary and submental regions have

been entered we do not believe that infection from the mouth is of serious consequence, since we have very often had to enter the mouth at the same

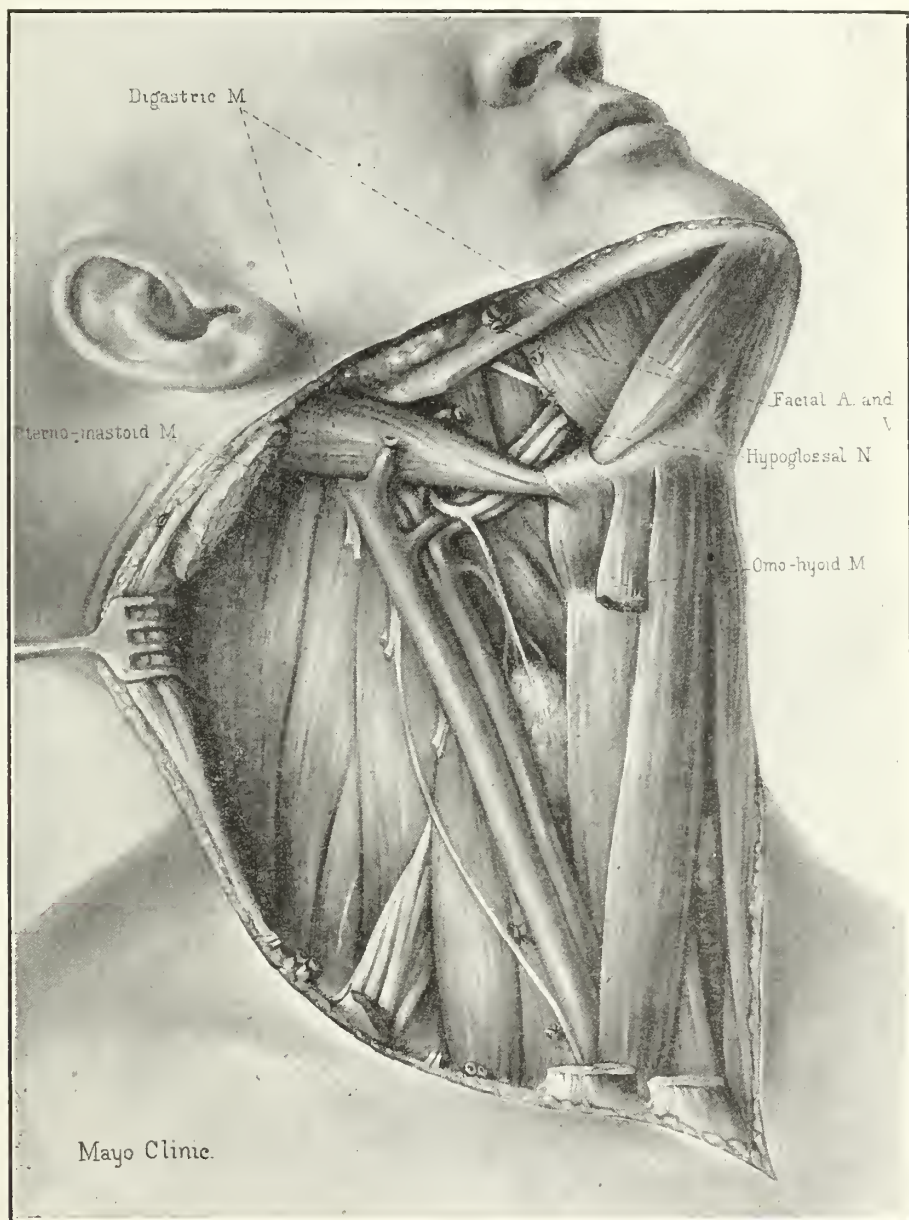


FIGURE II. Block dissection with removal of sterno-mastoid muscle, employed when submaxillary glands are carcinomatous.

time and also because infection often takes place through the cut duct of the submaxillary salivary gland. If it be necessary to extend the dissection down along the jugular to the clavicle, we prefer to perform the

operation in two stages, doing the neck part first, which blocks the spread of the disease, and operating on the primary growth one week later.

Our customary procedure in operating for cancer of the lower lip is illustrated by the accompanying charts. (Figs. 1-2-3). An incision is made $\frac{3}{4}$ inch below the ramus of the jaw from one sternomastoid muscle to the other. This incision extends through the skin and platysma muscle. The reason for making the incision as low as this is to avoid the small branch of the facial nerves which swings down below the angle of the jaw and then returns on the face to supply the muscles about the angle of the mouth. Where it is necessary to remove only a small portion of the middle of the lip a better cosmetic result is obtained by saving these branches of the facial nerves. If, however, it is necessary to remove more of the lower lip and widen the mouth by extending into the cheek it is not necessary to save these nerves. Through this incision the skin and platysma muscle are reflected down to the hyoid bone and up to the inferior maxilla.

All of the fascia and fat, including the submaxillary salivary glands, are removed from the submental and submaxillary triangles. It is necessary to ligate both the facial artery and vein. The blood supply to the face is so abundant through the other branches of the external carotid that we have never seen sloughing from this cause. The hypoglossal nerve and the lingual branch of the trifacial are exposed on each side and should be saved. After the removal of the glands this primary incision is closed, drainage being established through small separate incisions on each side. The platysma muscle is stitched first and then the skin with a subcutaneous suture. The wound in the neck is then carefully protected and the operation on the lip begun.

A quadrilateral section, including the full thickness of the entire lip, is removed, running down nearly to the point of the chin. The section removed should include the growth and from one-fourth to one-half inch on each side into the healthy tissues. The coronary artery should be tied on each side. An incision is then made from the lower angle of the quadrilateral parallel to the ramus of the jaw on either side as far as is necessary to obtain enough tissue to close the defect. The entire flap from which the new lower lip is to be made should be freed well from the bone. These flaps are then sutured together in the midline with silk-worm gut sutures, the skin being approximated with horse-hair. If the skin remaining over the point of the chin is too long to be approximated to the new lip so that it produces wrinkles, it is shortened by taking out a small triangle at one or both ends of the incision, as shown by the accompanying diagram. This is the technic employed in cases where only a small portion of the lip is removed. If one-half or more of the lower lip must be removed, the primary incision is made in precisely the same way. In addition to the incision running from the lower end of the quadrilateral piece along the ramus of the jaw, it is now necessary to make incisions parallel to the former, extending from the corners of the mouth

directly into the cheek. These incisions should extend slightly downward rather than upward. The suggestion of J. Clark Stewart to incise through all the tissues except the mucous membrane, then go one-fourth inch higher before cutting through the mucous membrane is a valuable point in the technic, as it gives plenty of mucous membrane to stitch over the raw surface of the lower lip and thus prevents con-

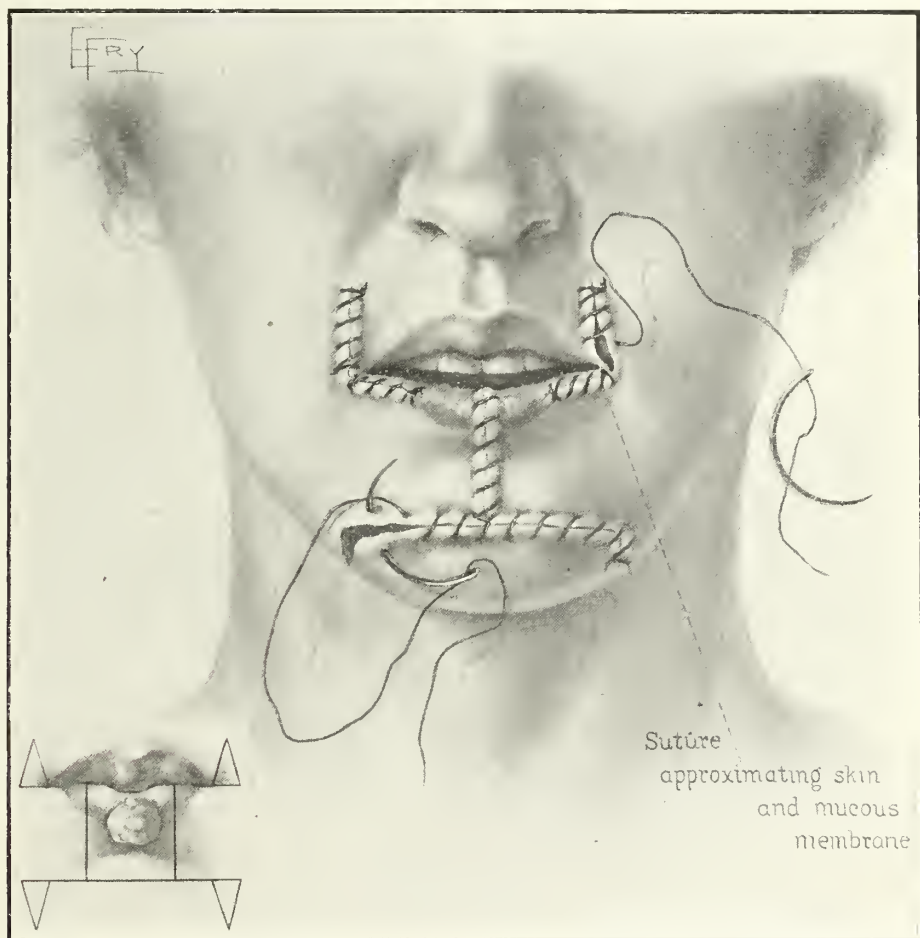


FIGURE III. Illustrating plastic operation for removal of a portion or the entire lower lip for carcinoma.

traction of the mouth later. When the flaps on each side are thoroughly free, they are approximated as in the former case, the only difference being that the raw surface of the lower lip must be covered with mucous membrane as just mentioned. It is now seen that the lower lip is shorter than the upper, and also shorter than the skin remaining on the chin. These two latter are shortened by removing triangular pieces from the extremity of each incision, as shown in the diagram. This plastic work

was taught me by C. H. Mayo and I have not seen it described in the literature.

From January 1, 1907, to December 31, 1911, there were 199 patients with cancer of the lower lip observed in the Mayo Clinic. This number includes only those patients having a cancer confined to the lower lip or one which had apparently originally arisen in that location. In addition to this number, there were a great many others having cancer of the upper lip, upper jaw, mouth, tongue, tonsils and pharynx, which are not included in this report.

Twenty-five of these 199 cases were diagnosed from clinical findings only and consequently cannot be proved definitely to have been cancer. Two of the patients had the local growth removed from the lip before coming to our clinic. From the histories it appeared beyond question that the condition had been cancerous and it was thought advisable to remove the submental and submaxillary glands. This was done and both of the patients are well without any sign of recurrence. Seventeen patients in this series were considered inoperable when first seen. Two others refused operation and four are not accounted for, which means that we have no definite knowledge as to whether they refused operation or were considered inoperable. This makes up the group of 25 cases in which there was a clinical diagnosis alone. The remaining 174 cases have been proved to be cancer by both clinical and pathologic diagnosis. These 174 cases really form the basis of this report, since it is necessary to prove by microscopic examination that we are dealing with cancer.

One hundred twenty-six patients had a radical operation performed as the first operation. By a radical operation I mean that the local growth was excised with a wide margin and in addition the lymphatic glands which make up the drainage area of the lower lip were also removed either at the time of the operation on the lip or a few days later. Ninety-nine of these patients have been traced; we have received letters from them or examined them within the past few weeks. Twenty-seven of the group have not been heard from.

Of the 99 patients who have been heard from, 83 have no sign of a recurrence either locally or in the glands of the neck. Sixteen have either died of their original trouble or now have a recurrence. Seven of these 16 patients had glands involved at the time of their operation and three others had an extensive growth on the lip.

Considering only the cases of which we have a definite knowledge, that is, the 99 patients from whom we have received letters or who have been examined by us, 83 of which are cured, gives us a percentage of cures following a primary radical operation for cancer of the lower lip of 83.8 per cent. It might be interesting to note the time since the operation on these 83 cured cases: Two of them were just one year ago; 25, between one and two years; 17 between two and three years; 20, between three and four years; 15 between four and five years; and 4, over five years. In 18 of the above number glandular involvement was demon-

strated by the microscope at the time of their operation and 9 of these, or 50 per cent, are among the cured cases.

In another group I have placed 25 patients who had a late radical operation, that is, removal of the glands of the neck following one or two local operations on the lip or following treatment by paste. Twenty of these patients have been traced. Fourteen are classified as cured and six as not cured, giving a percentage of 70 per cent of cures in those patients having a late radical operation as compared with 83.6 per cent of cures in cases that had radical operations as the primary treatment.

Twelve of the above 25 patients had glandular involvement demonstrated by the microscope at the time of the operation; 4 of these are cured. While this group of 25 is much smaller than the previous group, it is interesting to note that when the radical operation was delayed only a third of the patients having glandular involvement were cured as compared to 50 per cent of cures in those having glandular involvement following a primary radical operation.

Five patients had an incomplete removal of the glands either as a primary or secondary operation. All of these patients have been traced. In this group are cases in which an operation was attempted but abandoned because the involvement was found to be so extensive. It also includes these cases in which glands were removed from but one side of the neck, the growth in the lip being confined entirely to one side. Two of these patients are well with no signs of recurrence.

In a last group consisting of 18 cases we have placed those patients who had an excision of the local growth without the removal of any glands. Most of these patients were seen early in the disease but their general condition or age prevented a radical operation. Fifteen of these cases have been traced, 11 of which are cured, giving a percentage of 73.3 cures. It has been stated by other observers or borne out by statistics that an early operation for cancer, although not a radical one, is often more favorable than a late radical operation. This holds true in the present series, as 73.3 per cent of the patients having an early local excision were cured as compared with 70 per cent of cures among those who had a radical operation in a late stage of the disease. There were no operative deaths in this series of cases.

Note.—I am indebted to my assistant, Dr. Ethan Flagg Butler, for compiling the statistics.

CANCER OF THE LOWER LIP.

GROUP	No. Cases	No. Operated	Traced	Not Traced	Cured	Not Cured	Inoperable	Per cent Cured
I. Clinical diagnosis only....	25	2	6	19	2	23	17	
II. Primary radical operation	126	126	99	27	83	16		83.8%
Glands involved	18	18	18		9	9		50. %
III. Late radical operation..	25	25	20	5	14	6		70. %
Glands involved	12	12	12	0	4	8		33 $\frac{1}{3}$ %
IV. Glands removed one side or incomplete	5	5	5	0	2	3		40. %
V. Local incision only.....	18	18	15	3	11	6		73.3%

ENDOCARDITIS.

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The term endocarditis includes all inflammatory affections of the endocardium. For convenience, these are subdivided into acute and chronic endocarditis. The acute is further divided into benign and malignant and these still further classified according to pathology, bacteriology and symptoms. Chronic endocarditis is practically synonymous with chronic valvular disease and as that is to be the subject of another paper to be read, will not be considered here.

The initial attack of endocarditis practically always develops as a complication of other disease. Later we may have attacks where it seems to be the only lesion, the disease which it originally complicated having entirely disappeared. The diseases most frequently complicated by endocarditis are (1) acute articular rheumatism, (2) chlorosis, (3) scarlet fever, (4) gonorrhea, particularly gonorrheal arthritis, (5) tonsilitis, (6) pneumonia, (7) puerperal sepsis, (8) infected wounds. Less frequently it complicates typhoid, diphtheria and other infectious diseases.

The classification of acute endocarditis as benign and malignant is purely arbitrary as they are the same process, differing only in intensity.

Pathology. The pathology of acute benign or simple or vegetative endocarditis is the development of vegetations on the endocardium and is almost entirely confined to the valves. These vegetations are due to bacteria and are verrucose, wart-like, papular, or pedunculated. At first they are grayish, gelatinous and transparent. They are composed of two layers, the deeper consisting of granulating endothelial and subendothelial tissue and the upper layer consisting of thrombi from the blood with which they come in contact. The thrombi contain few or no bacteria. The thrombi may become dislodged forming emboli in any part of the body. The effect of these is mechanical only, as they are not infective. Later the deeper layer becomes white and of fibrous consistency causing the valve to become sclerosed and often the orifice to become stenosed.

The pathology of malignant or ulcerative endocarditis is the development of an ulcerative process on the vegetations or the sclerosed valves of a simple endocarditis. The ulceration is usually confined to the valve but sometimes extends from the aortic valve to the aorta, from the pulmonary valve along the pulmonary artery as far as the hilum of the lung, from the mitral valve to the chorda-tendeneae or to the wall of the heart. In the aorta this may produce aneurysm, in the heart may destroy chorda-tendeneae, or may extend into the heart muscle deep enough to produce an opening between the ventricles or a rupture of the external walls of the heart. On the valves when the outer layers have been destroyed the pressure of the blood often causes stretching of the thinned walls producing valvular aneurysms. When the whole thickness of the valve is destroyed, of course, a leakage at once results usually sufficient to destroy compensation.

Thrombi form on the ulcerations containing a large number of bacteria. These are constantly being carried away in the blood stream causing a bacteremia. Pieces of the thrombi of variable size are often broken loose and are carried in the blood lodging in the different organs causing endarteritis, or embolism with infarcts. The results of these vary with the character of the material forming the embolism. If due to streptococci, a hemorrhagic infarct usually results; if due to staphylococci or pneumococci, a suppurative infarct develops. There is always present a polymorphonuclear leucocytosis and cultures of the infective organism may be made from the blood if a sufficient quantity is used.

Symptoms. The symptoms of simple endocarditis are a slight temperature rarely exceeding 101 F., heart rate nearly always affected, usually quickened but occasionally slowed, and often irregular. There is rarely any pain but there may be some palpitation and pre-cordial distress. These symptoms are not diagnostic of endocarditis and are more apt to be due to a myocarditis or pericarditis. The valve sounds, which must be depended on for making a diagnosis, are at first normal but as the disease progresses we get a muffling or irregularity of the cardiac sounds, later a murmur and still later the signs of valvular insufficiency. Diastolic murmurs are more suggestive than systolic for they are rarely functional. Embolism, when it occurs, is very distinctive.

The symptoms of malignant endocarditis are even more variable than those of the simple variety. Fever is a fairly constant symptom but it may be of almost any variety; constant, regular or irregular remittent, regular or irregular intermittent. In the so-called typhoid type, the fever may resemble very closely that of typhoid. In fact all the clinical symptoms of typhoid may be present including the typhoid tongue, rose-spots, relaxed bowels, hemorrhage from the bowels, and the diazo reaction may be present. The Widal reaction, of course, is absent and there is a moderate or severe polymorphonuclear leucocytosis and these alone enable us to differentiate a case showing these symptoms from a typhoid. Rigors followed by rapid rise of temperature, which continues high for awhile, then falls rapidly accompanied by free sweating is a very common type. These paroxysms are usually very irregular as to time of occurrence, but sometimes simulate quotidian or tertian malaria so closely that a blood examination is necessary to differentiate. Embolisms are very frequent and when they occur anywhere except in the lung are very suggestive of endocarditis of the left heart. When they occur in the lung they may be due to an endocarditis of the right heart or a dislodged thrombus from any part of the venous system. The symptoms and results of these emboli vary with the size and location and the infective organism present. If they occur in the brain we have a paralysis which may be more or less permanent or entirely disappear, or may result in brain abscess or suppurative meningitis. If they occur in the lung, spleen or liver there is sudden pain in the affected part, later the symptoms may disappear or there may be suppuration or gangrene in the part supplied by the plugged

artery. Emboli in the kidney are apt to cause blood or albumen in the urine and may result in suppuration or any form of nephritis. If they occur in the vessels of the skin they produce hemorrhagic or suppurative infarcts and by these we are often able to complete the diagnosis. On physical examination the area of cardiac dullness is increased, extending usually to the right of the sternum, the apex beat which at first is located normally travels outward and downward, often being well to the left of the nipple line and in the sixth or seventh interspace. The cardiac sounds change with the progress of the disease, the location of the changing sounds depending on which valve is affected. A post-systolic murmur heard best in the third interspace close to the sternum is indicative of affection of the aortic valve. If the mitral valve is involved the murmur is heard best at the apex. The first sound becomes prolonged and roughened, later a doubled sound appears, and still later the first sound is followed or replaced by a soft blowing murmur. Cabot states the murmurs most suggestive of endocarditis are those that change rapidly under observation, especially diastolic murmurs. There is usually some palpitation and pain or distress over the pre-cordium. General weakness and marked symptoms of sepsis are nearly always present.

Diagnosis. From the large number and variability of the symptoms enumerated it can be readily understood why there are so many mistakes and failures in diagnosing endocarditis. This was stated by Bamberger in the following words: "The diagnosis of acute endocarditis is seldom easy, usually difficult, and often impossible." The onset of the disease does not help much as it may be sudden or very insidious. When in the course of an acute articular rheumatism, chorea, tonsilitis, scarlet fever, gonorrheal arthritis, or other acute infections, a disturbance of the heart action develops with an elevation of temperature without a corresponding aggravation of the other symptoms, we should suspect endocarditis and watch the heart very carefully. "When fever without known cause is present any cardiac murmur must be thought of in the light of a possible endocarditis." (Cabot.) When fever is accompanied by the characteristic changes in the size and location of the cardiac dullness and changes in the size and location of the cardiac dullness and changes in the heart the heart sounds and heart rate develop while under observation, we can be fairly sure that an acute endocarditis is present. The occurrence of emboli in different organs of the body is very distinctive and often enables us to make a positive diagnosis.

In differentiating between vegetative and ulcerative endocarditis the accompanying disease must be considered as well as the character and severity of the symptoms present. Ulcerative endocarditis is very rare in chlorosis, tuberculosis, typhoid, diphtheria and scarlet fever. Is rare in rheumatism and tonsilitis; frequent in the endocarditis of pneumonia, less frequent in those of erysipelas, septicemia, puerperal fever and gonorrhea. Sepsis is very prominent in the ulcerative form and much less

so in the vegetative type. Leucocytosis is more marked and bacteria are present in the blood in ulcerative endocarditis.

In differentiating the typhoid type of acute endocarditis from typhoid fever a blood examination is often necessary, as the clinical symptoms may be identical. In ulcerative endocarditis with remittent or intermittent temperature with rigors and sweats a blood examination may be necessary to differentiate from malaria, especially if the changes of temperature have any regularity. The blood here will show the absence of the plasmodia of malaria and the presence of leucocytosis. When the symptoms are not very marked they are often masked by the disease the endocarditis complicates and its existence is overlooked. The most frequent mistake is in diagnosing other forms of sepsis, myocarditis, and pericarditis as endocarditis. So that even where all aids to diagnosis are used and the utmost care taken autopsy shows many cases of acute endocarditis which were not suspected and many cases diagnosed as such to be some other affection.

Prognosis. The prognosis of simple vegetative endocarditis is good as to life but complete recovery is rare. When we consider that most cases result in chronic valvular heart trouble, often with stenosis, and consider the dangers from resulting incompetency and recurring attacks of endocarditis, simple or ulcerative, it is readily seen that the term "benign" endocarditis is really a misnomer. The prognosis of ulcerative endocarditis is always very grave. The result is usually death in from a few days to a few weeks but sometimes is prolonged to a year or more. The cases which recover are mostly from among those due to gonococcic infection.

Treatment. The treatment of acute endocarditis of all forms may be considered under two heads (1) prophylactic, (2) treatment of the disease after it has developed.

Prophylaxis resolves itself into (a) treatment of the causal disease, including the treatment of sepsis, (b) rest, (c) treatment directed to the heart when it shows irritability or other signs of becoming affected.

As our knowledge of the treatment of acute infections by serums and vaccines increases, the number of cases of endocarditis resulting from these affections will decrease. The casual diseases will be prevented, or their severity lessened, sepsis avoided or lessened, and the infected organism destroyed before such complications as acute endocarditis develop. At present, however, this is largely a dream and while some good results have been attained by these measures, our main reliance for prophylaxis is on absolute rest during the course of the infections that are liable to be complicated by endocarditis, and for several weeks after the temperature is normal in acute articular rheumatism and scarlet fever. Not only should the patient be kept in bed, but every effort should be made to keep the mind at rest also. The work of the digestive organs should be reduced by a light, easily-digested diet, largely liquid, care being taken to not give enough liquids to throw additional work on the heart and kidneys. Irritability of the heart may be quieted and slowed by use of the ice-bag.

Mustard over the heart, care being taken not to blister, often gives good results. Stimulants should be avoided, especially during the early stages of the infection, but later coffee, ammonia, whiskey or brandy may be given. Digitalis is not to be used unless tumultuous action of the heart threatens to produce embolism. Even then small doses of morphine may be more satisfactory.

In a person who has had an endocarditis resulting in injury to the valves, care should be taken to avoid exercises that will bring an unusual strain on the heart, and such a person should be kept in bed when suffering from any infection.

Treatment of an acute endocarditis after it has developed is specific or symptomatic. Specific treatment is still in the early stages but the serum and vaccine treatments, especially that of autogenous vaccine, has given some very promising results. Where the serum is used, it should be used in larger amounts and more frequently than in other affections. Symptomatic treatment must, of course, be governed by the symptoms present. Hypnotics and coal-tar antipyretics should be avoided. If a septic diarrhoea is present, it should not be checked at once.

After the acute stage of vegetative endocarditis is passed the iodides should be given to aid resolution of the vegetations.

THE DIAGNOSIS AND PROGNOSIS OF VALVULAR HEART LESIONS.

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In connection with valvular heart lesions we are always confronted with the question: "What is the seriousness of the trouble?" Naturally, this makes the prognosis of heart lesions one of the most interesting, and at the same time distressing, problems with which we have to contend. First, our patient will want to know: "Have I heart disease," as he calls it, "and if so, is it dangerous to life?" Entirely apart from this anxiety of our patient, and considered as of merely scientific interest, the prognosis should interest the physician as much as, or perhaps more, than any question that may arise, not excepting the treatment of the case.

It is utterly impossible and manifestly so to foretell the limit of life in any one case of heart disease. The utmost within our power is to group the cases roughly, and by considering carefully the various factors, arrive at an opinion that in the individual case, may come far short of the mark, but in the average, will be not far from right. It is our purpose, in this paper, therefore, to analyze these various factors. It would be preposterous for us to attempt a prognosis, without endeavoring to make an accurate diagnosis of our pathological condition. The diagnosis should establish four points, viz.:

First. The valve involved and the lesion present, i. e., an insufficiency or a stenosis.

Second. The extent of the lesion.

Third. Presence or absence of compensation.

Fourth. The Etiological factor.

The diagnosis and the character of the lesion is often a relatively simple matter, as this depends on well understood data. At times, however, when we have a combination of lesions or a very slight lesion, a diagnosis may be very difficult, and a variety of opinions will be expressed by as many men. In the combined lesions, the important elements are usually recognized; the chief difference of opinion being in regard to slight lesions, complicating more severe ones where the question arises as to whether or not a lesion exists. The ability to diagnose and diagnosis itself are very important.

Perhaps the most frequent question is in regard to mitral insufficiency, and right here, may we say emphatically, that a murmur in itself, is not sufficient evidence to make a diagnosis on. There must be some displacement of the apex outward or other evidence of enlargement of the heart. And, unless there be some accentuation of the pulmonary second sound, there is probably no lesion present in spite of a murmur. Anemia will often produce such a murmur. And these so-called haemic murmurs are not evidence of organic trouble. An anatomical peculiarity in the chordae tendinae may cause the first tone to be muffled. According to my observations, these murmurs are most often heard at the base of the heart, just to the left of the sternum in the third inter-space. They may be heard at the apex. In children, we must not forget that the second pulmonary is often louder than the aortic. Often times also, in children, when we notice this apparent accentuation associated with a systolic murmur, it is necessary to withhold our opinion till time shows us that the murmur is functional.

The second aortic tone is often accentuated in arterio-sclerosis, or any other condition producing high arterial tensions, and this may cause us to overlook a mitral leak. Such a murmur will often entirely disappear on rest in bed, but it may easily be brought back by exercise; not invariably, however.

A man has a systolic thrill and murmur over the aortic area, and we err in diagnosing an aortic stenosis. This latter lesion does occur, but remember it is a rare condition, and should not be diagnosed unless other signs are present, such as an absence of the second aortic and slowly rising and long-sustained pulse wave. The systolic thrill and murmur found in the aortic area are most often due to aortic insufficiency. It is the result, possibly, of arterio-sclerosis of the valve, or to an aneurysm; only rarely are they due to an aortic stenosis.

A case under my care at one time showed strong evidence of broken compensation; there was no murmur, or at most a slight systolic murmur, which I interpreted to be due to a relative insufficiency. But when my patient died, and I carefully reviewed his history and remembered his small, hard pulse, the high area of dullness due undoubtedly to the dilation of the left auricle, and a peculiar slapping quality of the first tone,

I got to thinking and soon realized my man had died with a high grade mitral stenosis. On the whole, I believe we may say these cases are relatively easy to diagnose, but there are opportunities for error.

The extent of the lesion—

Although it is often difficult to accurately determine the extent of a lesion, it is perhaps more important to do so, than it is to establish the mere diagnosis or presence of the lesion; murmurs offer us practically no aid in determining the extent of a lesion except that as a rule a loud murmur indicates a slight lesion, and a relatively good condition of the heart muscles. When this loud murmur becomes weaker, however, it indicates as a rule, muscular weakness. Therefore, we need to look to other sources for our chief evidence and right here may we emphasize the importance of the examination of the apex beat by palpation. It is true, very often we are unable to locate the apex beat definitely and must rely on percussion, but when the other is possible, and when we can define it accurately, we have definite and irreproachable evidence of the exact condition of the left ventricle, since it is possible to tell by the width of the apex whether or not this cavity is dilated and by the force of the impulse whether there is hypertrophy present and to a degree how much. The general precordial impulse and the epigastric pulsation give us information as to the right ventricle, which is, of course substantiated by our findings on percussion; we may diagnose right ventricle hypertrophy on an accentuation of the second pulmonic, for this indicates increased tension in the pulmonary circuit and that in turn means more work for the right ventricle, which must have hypertrophied in order to do its work. So, judging from the size of the heart and the inference derived therefrom, we may diagnose the extent of a lesion. If there happens to be an associated myocarditis, a considerable dilatation may accompany a slight lesion. In these cases we may make an error in diagnosis, but the prognosis will be the same. As a rule, a large heart means an extensive lesion, and a slight change in the size of the heart means a slight lesion. An additional question as to the stationary or progressive character of the lesion comes up. We may say as a rule an insufficiency is apt to be stationary, while stenosis is more likely to progress. Other factors enter here which will be discussed later.

Compensation. We must decide whether or not compensation is perfectly established in each case. It is possible usually to establish this point by carefully eliciting the patient's history. If at any time he has suffered with shortness of breath on exertion, together with cough, etc., then probably compensation has been imperfect or has been on the verge of breaking. We must consider the various lesions separately upon our examination. We know that with mitral insufficiency we have hypertrophy and dilatation of the left ventricle, dilatation of the left auricle, increased tension of the pulmonary circuit and a consequent hypertrophy of the right ventricle. This sequence of pathological conditions gradually develop. Dilatation of the right ventricle is not a necessary part of the

picture, but when it does occur it means a broken compensation. At the bedside, when we have such a lesion, we will find the right border displaced to the right, while simple hypertrophy will not accomplish this displacement to any extent. Therefore, this displacement to the right of the sternum justifies a conclusion that we have a broken, or at least an imperfect compensation. With a mitral stenosis, we always have some insufficiency, and a high-grade stenosis is never perfectly compensated. We have in both mitral lesions, practically the same clinical findings, i. e., pulmonary passive congestion, evidenced by a bronchitis, oedema, etc., passive congestion in the portal circuit evidenced by a large tender liver and ascites; and passive systemic venous congestion, evidenced by oedema of scrotum, legs, etc.

Aortic lesions, when compensation fails, show the same symptom and signs of mitral lesions. With dilatation of the left ventricle, a relative mitral leak may develop, or the symptoms of a broken compensation may develop without there being any relative valvular leak. When we have both aortic and mitral leaks present it is often difficult to say whether the mitral insufficiency is primary or is a relative lesion due to the dilatation. This is often impossible to determine since in cases due to arteriosclerosis of the aortic valve, the anterior cusp of the mitral valve is often affected. It is well to remember that an acute endocarditis almost never causes an aortic leak alone, but that the mitral valve is also involved in the majority of cases.

Etiological Factor. Our pathology teaches us that there are two important groups of cases of valvular disease. In the one, where an acute endocarditis has occurred, the valve leaflets are thickened and retracted from scar contraction, and the chordae tendinae are thickened and shortened. Frequently the cusps of the valve are adherent. These changes occur on the free edges of the valves, the attached margin remaining unchanged.

In the other group, the valve changes depend on the primary changes in the aorta, and occur by a process of extension from the aorta. Hence the attached margin is thickened and often indeed calcareous. The valve segments become thickened and do not coapt perfectly, or the opening may be stenosed. Naturally, the aortic valve is most frequently involved in this hardening process, though the mitral may also be affected, owing to the fact that the anterior cusp arises from the aortic ring. On the other hand, the mitral valve is most frequently involved in the acute endocarditis process. The cause of acute endocarditis is very frequently acute articular rheumatism, although of course, it may be the result of scarlet fever, measles, septicemia, pneumonia and other acute infectious diseases. True, too, it is only too often that we are unable to elicit any cause for the trouble, and yet we have every evidence of the true nature of the malady.

There are also many obscure infections with which we have to deal, the true nature of which we do not recognize until we notice a subsequent

development of a valvular lesion. Many of these cases give a history of "malaria" or some other acute disease that was nothing more nor less than an acute endocarditis that was not recognized. As stated above, atheromatous degeneration of the aorta seems oftentimes to extend to the aortic valve, thus causing valvular lesions. Every etiological factor favorable to the development of arterio-sclerosis is, therefore, important in the production of valvular disease. These include syphilis, alcoholism, lead, advanced life, excessive physical labor, etc. There is today unimpeachable evidence of the influence of chronic nephritis upon the development of these lesions.

It is of utmost importance to recognize these two groups of cases, for the prognosis is much different. In the primary sclerotic group the vessels of the heart itself are often involved with the production of endocarditis, angina pectoris, etc., and the patient may drop dead at anytime from an acute dilatation of the heart. Also, the lesion is more apt to be progressive. These cases occur as a rule, later in life, from forty years up, but do not forget that they may occur earlier. A tendency to an early sclerosis frequently runs in families, and we get a history of father, grandfather, uncles, etc., dying at 40, 50, 60 odd years of apoplexy, "dropsy," angina pectoris or other manifestations of vascular mischief. In the group due to a primary acute endocarditis, the lesion is less apt to progress, the heart muscle is not so often involved and the condition occurs more often early in life; as we know, many of these cases do recover, or at least the pathological condition remains quiescent for a considerable length of time; however, some of them die while yet in their prime.

Having made a diagnosis, not only of the lesion but also of its extent, the degree of compensation and the cause of the lesion, the prognosis of the individual case requires our attention, and right here we meet up with a large variety of opinions. Mitral insufficiency undoubtedly offers the best prognosis, and all in all aortic insufficiency the poorest. However, it is possible to qualify the latter statement, because if we separate this group as to cause, we find that the cases due to a primary acute endocarditis offer almost as good a prognosis as does mitral insufficiency. Both aortic and mitral stenosis are more severe, and again we must separate the slight from the grave instances of mitral stenosis. The milder cases of the latter where there are no pulse changes, but the predominating condition is the insufficiency that is always present, offer nearly as good a prognosis as mitral insufficiency alone. The severe cases on the other hand, offer almost as serious a prognosis as does aortic insufficiency due to arterio sclerosis.

Let us arrange the lesions then in the following manner of increasing danger:

1. Mitral insufficiency.
2. Mitral stenosis of slight degree.
3. Aortic insufficiency due to acute endocarditis.

4. Aortic stenosis.
5. Mitral stenosis of a high grade.
6. Aortic insufficiency due to primary chronic endocarditis.

We have observed that many of the cases of aortic insufficiency show more or less mitral insufficiency, and that practically every case of mitral stenosis shows more or less insufficiency. In neither of these cases does the mitral leak affect the prognosis very much. There is frequently found a presystolic murmur just external to the apex in cases of combined aortic and mitral insufficiency, and we wonder whether this murmur indicates a mitral stenosis. Frequently the only decision that can be arrived at is that if present, it is very slight. Where tricuspid insufficiency is diagnosed together with a mitral, or aortic and mitral lesion, it would be hard to say whether this is a primary or a relative lesion, but with improvement, if the tricuspid insufficiency disappears, we may diagnose a relative lesion positively, and we must remember that this is a very rare primary lesion and should almost never be diagnosed, particularly when compensation is imperfect. However, when partial stasis is much more extensive than is general systemic stasis, then we should suspect a primary tricuspid lesion. This marked disproportion occurs chiefly in right lesions, whether due to valve disturbance or to passive lung congestion due to "emphysema." It also occurs in adherent pericardium.

The extent of the lesion affects the prognosis directly, i. e., the more extensive the lesion, the poorer the prognosis.

Uncompensated lesions offer a poorer prognosis, of course, than do compensated lesions. We cannot always say that a broken compensation savors of death. If it occurs after very severe exertion, as dancing, the heart may once more regain its tone; while if the break occurs in the course of ordinary pursuits, the prognosis is of course grave. However, we sometimes have contradictory evidence to this rule. I well remember a case, following acute rheumatism, which we had watched develop mitral and aortic insufficiency. The patient was kept very quiet until his symptoms improved. One day he walked out for a little exercise. He suddenly became faint and showed a rapid, irregular pulse, with some evidence of dilatation. He soon improved, however, and insisted on returning to his home, some miles away. He was instructed to remain quiet for several weeks before resuming his work, that of a coal miner. We saw him three months later, for a slight bronchitis. He said he had gone back to work two days after going home, and had worked hard every day. Evidently his experience of three months previous had been of a purely nervous character.

Enough has been said as regards the effect of cause of the lesion on the prognosis. Before we can consistently close the subject of prognosis, it is well to mention certain personal factors that have an undoubted influence on valvular lesions. The age of a patient, for example, will affect our prognosis. Adolescence and early adult life are the ages in which these lesions offer the most favorable prognosis. As age increases the

prognosis grows more grave. The young have a better general and cardiac tone, and the heart muscle has more reserve to draw on. This makes it entirely a question of heart muscle. On the other hand the development of puberty is apt to draw heavily on the reserve and may over balance a well compensated lesion. In adult life, men are more prone to grave valvular lesions, possibly owing to the greater exposure from their occupations as well as their habits.

Pregnancy and parturition are disturbing factors in women, but are, we often have reason to believe, less serious than some authors would have us believe.

As a general rule the chances are better in those individuals of the better class, whose mode of life may be fixed by choice and not by necessity. Family history, as has been mentioned in discussing the cause of the lesion, is of importance in prognosis. A family tendency to early arterio sclerosis gives a relatively bad prognosis.

Certain associated conditions may be of great importance in the prognosis. For instance, a pericarditis associated with an endocarditis doubly affects the prognosis. As you know, we have such a condition developing say from an acute articular rheumatism. We are very apt to have a myocardial affection, thereby greatly enhancing the embarrassment of the heart as a result; compensation is broken and death may occur from heart failure within a few months of the original trouble.

Continued high arterial tension, from whatever cause, with or without sclerosis, is bad, in that the work of the heart is materially increased. We see this in all forms of Bright's disease, but especially in chronic interstitial nephritis. Emphysema is also an important factor, since it raises the pulmonary pressure, thereby embarrassing the right heart. There are many other conditions productive of high blood pressure which directly or indirectly affect the prognosis of valvular lesions.

Certain accidents must always be considered in rendering a prognosis. In mitral stenosis, where the dilated auricle permits the formation of thrombi, emboli may be swept into the blood stream to be carried most often into the innominate and right carotid, finally lodging in the middle cerebral artery, producing hemiplegia or even death. Sudden death may occur from acute dilatation of the heart.

In conclusion, permit the following summary:

1. An accurate diagnosis must be made of the lesion, its extent, the condition of the heart as regard compensation, and the cause of the lesion.
2. The cause of the lesion, the age, sex, habits and family history of patient and the presence or absence of general and local disease are important in prognosis, chiefly from their effect on the heart muscle.
3. The condition of the heart muscle is the most important factor in the prognosis of valvular lesions.

FUNCTIONAL DISEASES OF THE HEART.

By T. D. Renfrow, Billings, Okla.

I suppose the reason that I chose this subject was because I did not know much about it, and, in studying the subject learn some things about the functional diseases of the heart.

In looking over the literature of this phase of heart trouble we found that the distinction between anatomical and functional diseases are not so clearly drawn as formerly.

Anatomical diseases of the heart were formerly looked upon as the only serious cardiac affections while functional disturbances were not so considered, but now, even heart death from functional disturbances is considered possible.

The failure of diastole in contrast to failure of systole in heart death leads one to consider heart death due to disorders of the nervous impulses to the heart.

Anatomical diseases of the heart may precede a functional disturbance, and, on the other hand, a functional disease end in anatomical disease.

Persons most frequently affected with diseases of the heart muscle and vascular system are those who, in early life, were the victims of neurasthenia or hysteria. We, as physicians, advise our patients to forget their self-diagnosed heart trouble because we fail to find any alterations in the size and sounds of the heart. Such advice gives little consolation to those who are the victims of some functional disturbance. We often observe the effect that severe mental strain or intense emotion has on the heart of the poor unfortunate victims of the so-called "broken heart."

The principal divisions of functional heart disturbances are divided into the affections known as tachycardia, bradycardia, cardiac arrhythmia, angina pectoris, pseudo angina, the digestive disturbances of the heart, the affections due to sexual organs, and irritable and weak heart. While there are other classifications of functional heart diseases, I will only briefly consider the ones mentioned.

First, tachycardia, or fast heart, may occur in most all pathological processes of rapid heart, or polysystole, which increased rate is at the expense of the diastolic time in the cardiac cycle. The long pause is much shortened, but the shortened time between the systolic and diastolic sound (or the short pause of the cardiac cycle) is not apparent. By embryocardia we understand, not only an increase in the heart rate, but also a modification of the heart sounds and spacing of silent phases. In embryocardia the systolic and diastolic sounds are identical in character and there is a shortening, not only of the long pause, but the short pause as well, the two having the same length.

The distinction between polysystole and embryocardia is very clearly brought out in instances of rapid heart rate as may be produced by pres-

sure neuritis of the vagus on which is grafted the phenomenon of paroxysmal tachycardia.

So long as the heart rate is maintained at 140 or 160 we are able to identify the phases of heart sound by their character and by the spacing of silent phases.

If an attack of paroxysmal tachycardia should appear all this differentiation is effaced and we have the phenomenon of embryocardia.

For the production of embryocardia we must have marked shortening of the refractory period of the systolic phases of the heart and shortening of the compensatory pause. Thus we see tachycardia with embryocardia exhibits phenomena which correspond to a prolonged series of extra systole.

Paroxysmal tachycardia is clinically inseparable from embryocardia. The duration of the attacks last from a few minutes to months. The onset is sudden and terminates equally as sudden. The patient will often have a premonition of impending tachycardia by occasional extra systole or intermissions. The warning lasts for half a day or five minutes. There is a feeling of oppression over the precordial area. A sense of numbness and weakness in the left arm, a feeling of sudden flow of blood to the head, and a throbbing feeling over the heart, the onset and termination is sudden if the origin is in the medulla, but not so, if in the myocardium. When vagus pressure is the cause, the rapid heart rate is constant throughout the attack.

The cause of spasmodic asthma in the child with tuberculous mediastinal glands may be regarded as a crisis of vagus disease. Cardiac crises in the course of vagus disease is a closely related conception.

I remember a patient of mine who in her usual health had a very high pulse rate, after having typhoid fever, during the convalescing period, got out on the vessel unassisted despite the warnings against exerting herself. The nurse in the adjoining room heard her getting out of bed and started to go to her assistance. The patient succeeded in getting on the vessel. The nurse saw the patient's head drop on her chest and life was ended prematurely and untimely.

Bradycardia occurs in from 4 to 17 per cent of patients. Some writers reports bradycardia as more common. The proportion of women to men all the way from 6 to 50 per cent. Bradycardia may result from reflex and direct stimulation of the vagus center from irritation of the vagus trunk or the heart itself. Bradycardia that will show increased heart rate after the administration of atropine the cause is external. Bradycardia of myocardial origin is little affected with atropine. Bradycardia which accompanies acute infection may have two sources of origin, namely, myocarditis and infection vagus neuritis.

Many of the most pronounced cases of bradycardia with a heart rate of 16 to 18 a minute have occurred in diseases of the coronary arteries. These are the conditions which are most favorable to heart block. Any process which causes an increased intra-cranial pressure may cause brady-

cardia. Bradycardia may occur in melancholia, hysteria and neurasthenia and is sometimes found in syringomyelia combined systemic diseases of the chord and tabes dorsalis. Bradycardia may be caused from pressure on the chord from neoplasms, hemorrhage, or disease of the vertebra. Bradycardia may occur in a number of intoxications, such as lead, digitalis, muscarine, pieric acid, and pysostigmine. Nicotine in pharmaceutical experiment is found to slow the heart rate, but we do not see this phase of nicotine poison in smokers as the patient does not consult his physician until the latter effects of rapid heart and arrhythmia appear. In infectious diseases several sources of bradycardia are to be considered: The infectious vagus neuritis myocarditis and toxins which affect the heart muscle. I lost a little patient from diphtheria toxin after the membrane had all disappeared. The heart had showed some weakness, but gave way suddenly with little warning. The diagnosis of bradycardia requires first to determine the relation of the arterial pulse to the number heart impulses and the number of centrifugal pulses in the veins.

To determine whether there is a genuine bradycardia, ineffectual heart beats or heart block, the procedure would be to look for evidence of disease of the brain or spinal cord, and any possible source of toxic infections or pressure of vagus neuritis, and finally we must consider the myocardia, and seek for possible sources of reflex stimuli.

Cardiac arrhythmia is so protein in character and origin and variations in prognostic significance there is no fixed plan for interpreting its meaning. Any form of arrhythmia must be considered in its pathological and etiological relations before its real portent can be understood. Any disturbance of the heart rhythm usually disturbs the patient, which is of an uncomfortable and sometimes terrifying nature.

The physician's diagnostic art is rarely more severely taxed than in explaining the cause and significance of some cases of arrhythmia. It may be due to stimuli of many kinds from the meninges, cerebral cortex, base of the brain and cord. Arrhythmia may be a symptom when there is irritation in the vast region supplied by the thoracic abdominal and hypogastric sympathetic chain. And, finally, the heart itself or its direct nerve supply may be sources.

The large range of possibilities brings the clinical study of arrhythmia in touch with the whole known and speculative field of pathological physiology.

Cardiac activity is the expression of co-ordinate excitation and inhibition in nerve paths and nerve centers, and when we consider the close anatomical relation of excitatory and inhibitory paths and the centers and equilibrium of the automatic center in the heart itself with the property of the auricle and ventricle to independently assume the rhythm then we have some conception of the very intricate problem.

Myocarditis may increase or diminish the heart rate or cause it to be irregular. Pressure on the vagi from tuberculous disease of mediastinal

glands may cause paroxysmal bradycardia or paroxysmal tachycardia. Gaseous distention of the stomach may cause bradycardia, heart block, tachycardia, extra systole, genuine arrhythmia, and a cycle of vagus irritation. These varying signs may appear in the same person at different times and in the same attack.

The transition from tachycardia to bradycardia with heart block has been seen. We must also consider the psychic stimuli that contribute to the production of rhythm. Nervous persons occupying themselves with a study of their pulse produce arrhythmia. Arrhythmia in the hysterical and hypochondriacal persist constantly and for long periods of great mental or emotional distress. Arrhythmia may be paroxysmal just as rapid and slow heart assume the paroxysmal character. Irritation of the vagus trunk may cause arrhythmia. It may accompany mediastinal disease. Toxic effects on the vagi and infections and inflammations of the same. The use of digitalis and opiums in small doses, tea and coffee may cause same.

There are cases of long standing arrhythmia which exist for years and not cause any functional impairment of the heart's work.

It would be a valuable aid if we could distinguish the various forms of arrhythmia in their pathological significance between genuine arrhythmia heart block, and extra systole, in which the rhythm is assumed by the auricle and those which are assumed by the ventricle. But there are difficulties in the way which have not yet been solved.

Angina pectoris, a disease associated with general regional vasomotor crises and with nutritive and functional ischemia of the myocardium has received as many explanations as there are concomitant symptoms accompanying the attacks. Angina is associated with impairment of the blood irritation of the myocardium. This can arise in several ways. First, isolated disease of the coronary arteries unassociated with the disease of the aortic valves or systemic arteries. Second, disease of the coronary arteries associated with the above named. Third, partial or complete occlusion of the lumen of the coronary arteries at their origin, on account of disease the aortic valves or the root of the aorta. Fourth, vascular crises in the coronary arterial distribution, due to vasomotor influence not associated with anatomical lesions of the arteries. In order for the myocardium to meet the sudden demands made upon its reserve energy requires great fluctuations in its blood supply. This supply can only be supplied by a varying vasomotor activity. Moreover, the myocardium shares with the gray matter of the central nervous system the highest degree of sensitiveness to an impaired supply of oxygen. From the above classification there is opportunity for widely differing pictures of angina. The term true and false angina are unfortunate. The patient who has symptoms of angina from vascular crises suffers from as true angina as the patient whose angina is caused from sclerosis. The difference lies in the pathological anatomy of the two kinds of angina, but the physiological pathology is the same. In both cases we are dealing with myocardial ischemia.

Patients suffering from cardio-vascular disease with attacks of angina usually present several points of tenderness to pressure.

The site of the spinal accessory as it turns over the sterno cleidomastoid muscle, the second and third ribs about one inch external to the left external border are most common sites of tenderness.

The subjective pain of angina pectoris may have a very wide distribution. The lower edge of the sternum is usually the site of the most intense pain, but it may be over the precordial area to the left of the sternum or may extend to the side of the neck or third cervical segment. In the arm the area of pain is most common in the distribution of the eighth cervical and first, second and third dorsal segments.

Epigastric pain and vomiting are common in angina from myocardial infarcts, but the gastric symptoms may be due to disease of the arterial supply to the stomach and not to the pains in the heart.

There has not been in the past sufficient appreciation of the role played by diseases of the abdominal aorta, its branches and arteries of the brain, and the accompanying vascular crises and functional and nutritive ischemia arising therefrom. Pseudo angina is a term used to describe cardiac pain unassociated with pathological lesions of the myocardia, coronary arteries, or aorta. Circulatory disorders caused by disorders of digestion are comparatively frequent. These patients are too often regarded as hypochondriacs and neurasthenics, and that auto suggestion is the source of their trouble. They become mentally depressed and this increases their digestive disturbance and finally such patients live in constant terror.

Irritable or weak heart. Up to the present time there exists no absolute proof to my knowledge of acute passive dilatation and death from excessive muscular exercise, although there are excellent physiological and clinical reasons for believing they occur, there is a suspicion that a former infection, congenital defects or manner of living were contributory influences, although there is no doubt of the ability of a man to work a heart, which is impaired, to death. There is some doubt about a sound heart being worked to death. An athlete starts on a mile run, during the first quarter his heart beats violently and his dyspnea distresses him more than in the second quarter, he has got his second wind. This experience is due to the intervention of depressor nerve stimuli which introduce vagus influences for the conservation of the heart and vasomotor relaxation to lighten the vascular resistance. It is probably this vagus which causes the compensatory active dilatation in muscular exercise which has often been falsely interpreted as a passive dilatation and sign of the heart failing under the increased demand of physical exertion. The vagus is the diastolic and anabolic nerve of the heart and both influences are conservation measures under such circumstances. The heart is capable of greatly increasing its capacity, without causing passive dilatation, and the anabolical effects of the vagus influences the metabolism of the heart muscle in a favorable manner. The accelerator nerves are the catabolic

nerves of the heart. In paroxysmal tachycardia the heart really diminishes in size early in the attack. If the attack is prolonged for several days we then see signs of passive dilatation appear. The heart increases in size and cyanosis, dyspnea pulmonary oedema, hepatic stasis, albuminuria, oedema of the legs develop. The signs have been observed where death seemed imminent when suddenly the normal rhythm of the heart was restored and all signs of incompetence promptly disappeared. Such a series of events followed by instantaneous recovery would be impossible if the tachycardia were merely a symptom of myocardial disease and not the primary affection. In such a case we are justified in saying that heart exhaustion is due purely to accelerator influences.

Experiments show that the heart's action depends upon the supply of oxygen and the removal of carbon dioxide.

Mangus showed that the mammalian heart could be maintained in rhythmic contractions for an hour after the removal from the body by simply conducting a current of oxygen through the coronary arteries without any nutrient material. Furthermore, he showed that the contractions could be maintained for a short time if the products of metabolism were carried away by conducting a current of hydrogen to the coronaries. If carbonic acid gas were introduced into the coronary circulation the heart's activity promptly ceased. Precordial pain and rapid heart rate are two conspicuous symptoms in irritable heart.

The effects of tea, coffee and caffeine on the mammalian heart has been interpreted in as many ways as there are students on the subject. When coffee is drank in moderation, it may be responsible for occasional cardiac intermissions, but it is very doubtful if this can be a direct effect. It is more probable a reflex effect on the heart due to digestive disturbance. Tea and coffee certainly favor the production of paroxysmal tachycardia in patients who have such attacks secondarily to gaseous distensions of the stomach.

Secondary to digestive defects are the modifications of blood distribution. Patients with gastro-intestinal dyspepsia and ptosis of stomach are troubled with cold hands and feet and have a radial pulse of small volume and low pressure. Some people become chilly after eating their meals. The circulatory disturbances associated with digestive disturbances are of a mild type. While with ulcer and cancer of the stomach, obstruction of the bowels, peritonitis, ascites, and metearism, are never associated with such cardio vascular symptoms, which seems strange.

Explanatory of the disparity, it has been suggested that grave diseases depress the reflex centers, whereas, the milder affections are associated with excitation.

While there are several other subdivisions of the functional diseases of the heart I will conclude my subject with a slight consideration of the influence of the sexual organs on the heart.

The pelvic organs and genitalia have a rich sympathetic nerve supply. From the inferior hypo-gastric plexus, which is a continuation of the solar

and aortic plexuses there is also a direct connection between the renal plexus and the ovaries. Vasomotor depression and accelerator impulses to the heart are common manifestations associated with irritation of the pelvic organs in both male and female. Cardiac palpitation with rapid pulse and slightly increased cardiac volume are described as results of excessive masturbation. Probably the cerebral cortex in such cases is as much a source of these symptoms as the sexual organs. Any factor which is so productive of painful mental experiences and introspection cannot be clearly differentiated as the sole cause of disturbance in the rate and rhythm of the heart. The beginning and end of menstruation are often associated with palpitation, rapid heart and sudden vasomotor oscillations, hot flushes, palpitation, and rapid heart are symptoms most women expect at the menopause. The female insane have exacerbations of cerebral symptoms at their menstrual periods.

SURGERY OF THE HEART.

Dr. R. M. Howard, Oklahoma City, Okla.

Surgery of the heart is a subject comparatively recent. Fifteen years ago the heart had not been brought within the surgeon's field, and wounds of the heart particularly were beyond surgical treatment. One author in 1895 described the treatment of wounds of the heart as follows: Lowering the head to prevent cerebral anemia, the administration of opium to relieve pain and to control inflammation, and the application of artificial warmth to the surface of the body. In 1896 Farina reported the first recorded case of suture of the heart wall for a penetrating wound, and, while his patient died on the fifth day from pneumonia, the operation seems to have been successful as far as repair of the damaged heart was concerned. Operations on the pericardium, however, were done as early as a century ago and more. In the memoirs of Baron Larrey we read that that distinguished Frenchman aspirated the pericardial sac in 1798, and we see reference to this phase of heart surgery throughout the literature of the past century. But even this operation was not done extensively until within the past few years. Wounds of the heart are not necessarily fatal, as popular notion would indicate. Writers from the time of Pare down to our own time relate cases of persons living for a longer or shorter time after heart injury. G. Fisher in the middle of the last century compiled 452 cases of heart wounds and found that from 7 to 10 per cent recovered completely. Even rupture of the heart, due to some pathological condition, is not always immediately fatal, Mumford citing a case of this type that survived for nine days. Degeneration of the heart muscle, however, renders any attempt at repair futile in these cases. The majority of persons receiving injury of the heart—even perforating wounds—do not die directly from the injury but from the subsequent loss of blood combined with the emptying of the heart, the result of pressure of the extravasated blood on the large veins. It has been proven by statistics that a perforating wound will heal firmly if the results of bleeding are

avoided. A fibrous scar is formed, however, which may later lead to the formation of an aneurism and rupture. Practical surgery of the heart is confined at the present time to operations for heart wounds, operations on the pericardium and operations for adhesions between the heart and parietal pericardium, or chest wall. Paracentesis Antriculi has been suggested, but until further experimental work has been done along this line we are not justified in attempting it.

Heart wounds produce instant and alarming symptoms. Pain, hemorrhage—usually free, sometimes slight—palpitation, syncope and dyspnoea. The symptoms depend on the location and extent of the injury. Death is instantaneous if the ventricle is torn widely, or the center for heart block is damaged, or if the auricles are injured. Fortunately the ventricle is injured most commonly, the left more often than the right. The wall of the ventricle may be injured without perforation. This superficial wound may bleed profusely, thus confusing the diagnosis. A perforating wound if small may bleed but little, owing to its being closed by the interlocking of the heart muscle with every systole. An important complication of these wounds may be coincident damage to the lung and pleura. The surgeon must take note of those victims of heart wounds who do not die immediately. These are the cases where surgery is important. If a patient who has received an injury in the region of the heart is found suffering from great dyspnoea with cyanosis, or from collapse and anaemia, and with a corresponding variation of the pulse, and if on examination hemorrhage into the pericardium, with or without hemothorax, is discovered immediate exposure of the heart is clearly indicated; first, with the object of opening the pericardium and emptying out the extravasated blood which is compressing the heart, and second, of suturing the wound in the heart. This should be done under the best aseptic technic attainable, and with the least possible damage to the surrounding structures. This treatment should be supplemented by proper stimulation—hot bottles, raising the foot of the bed, a hypodermic of morphine and atropine, the intravenous injection of normal salt solution with adrenalin 1 to 50,000, and the application of the pneumatic suit of Crile, if it is available. It is rarely necessary in these cases to give an anesthetic, but if one is used, ether only is permissible. This character of work, as well as all the work about the chest, should be done under differential pressure if possible. It is hardly necessary here to go into the steps of the operation, as some ten or twelve methods have been advocated. The method of Kocher is admirably described in our latest text books and it is the one most used. The following procedure, however, is common to all. With the patient in the Trendelenburg position cleanse the skin thoroughly, enlarge the external wound and ascertain the condition of the underlying cartilages and ribs. If they are found divided advance through the opening thus provided. If they are intact, turn back a rib or several ribs—first, the sixth and up as needed. Seek and tampon any rent in the pleura; expose the pericardium and find the wound in that membrane; enlarge the pericardial wound emptying the

pericardium of blood and clots, and look for the wound in the heart. Having found the wound suture it, using a round intestinal needle, with a continuous suture of cat gut or silk, being careful not to puncture the endocardium. Sponge out the pericardium and suture it, providing for the drainage. Suture any rent in the pleura and drain this area. The internal mammary vessels should always be inspected for any possible damage. Certain wounds of the heart offer brilliant opportunities for the surgeon. Without operation 90 per cent die; with operation, 64 per cent and the mortality is falling. Gun shot wounds are more fatal than stab wounds, but even they may sometimes be repaired.

Pericardial effusions, especially the simpler forms, may be dealt with by aspiration and incision. In such cases aspiration is comparatively easy and safe because the heart is crowded back into the depth of the pericardium. Aspiration is not safe, however, in cases of purulent effusion because the heart apex may be held forward by adhesions. The base of the pericardium extends transversely across the roof of the ensiform process from a point three-fourths of an inch to the right of the sternum to a point three inches to the left of the sternum. Above, it reaches as high as the second rib; its posterior surface reaches as high as a line drawn through the middle of the manubrium sterni.

Paracentesis of the pericardium is indicated according to Curschman in cases of serous, sero fibrinous and hemorrhagic effusions. First, when the fluid is rapidly increasing and oppressing the heart and lungs, causing dyspnoea cyanosis and a small rapid pulse. And second, when absorption does not take place, especially if there is concurrent disease of the heart and lungs, or the presence of fluid in the pleura. In selecting the site where we should puncture, which is only indicated where there is an extensive effusion, Curschman has shown that the choice is determined by conditions quite different from those which fix the site when the heart itself is to be reached in cases of injury to that organ. The portion of the pericardium which is closest in contact with the thoracic wall is to be avoided in performing paracentesis for when fluid accumulates in the pericardium it does so chiefly laterally and at the same time distends the pericardium outward, especially to the left and backward. In this way the heart itself comes close to the chest wall. Curschman, therefore, advises puncture in the mammary line in the fifth and sixth intercostal space. The needle, of course, traverses both layers of the pleura, although the lung escapes as it is pushed aside in all extensive effusions, which alone justify puncture. If puncture is made close to the sternum care must be exercised to avoid the internal mammary vessels, also direct injury to the heart. The use of the puncture in small effusions should be very much limited.

When the effusion is sero fibrinous, or hemorrhagic in addition to causing pressure on the heart there is danger of pericardial adhesions. These are best prevented by pericardiotomy. In suppurative pericarditis simple puncture is no longer regarded as adequate. Statistics show that

in nine cases of suppurative pericarditis treated by puncture all died. On the other hand, there were six recoveries in nineteen cases treated by incision without resection, and eight recoveries in fourteen cases treated by incision and resection. It has been shown by experiments with gelatin injections that in a sitting posture small effusions collect between the anterior attachment of the diaphragm and toward the apex, so this is considered the best place to secure suitable drainage. Resection of a rib and opening of the pericardium may be done under local anesthesia if necessary. There seems to be no reason why the flap operation used in exposing the heart in injury cases should not be used in pericardial effusions as it gives the best and safest exposure.

As a result of injury or of the irritation of a pericarditis we may get more or less, sometimes extensive adhesions between the heart and parietal pericardium or chest wall, with the resulting symptoms of pain, palpitation, dyspnoea, cyanosis, congestion and ascites. For the relief of these symptoms the pericardium has been opened and the adhesions broken up. This operation is termed cardiolytix; or the chest wall may be immobilized by resection of ribs and the sternum, one or both. Simply cutting the costal cartilages may give relief. Delorme devised this type of operation originally for the relief of pleural adhesions and later applied it to the heart. In these cases it is probably best to resect the periosteum to prevent the formation of new bone. To prevent the formation of dense adhesions between the heart and pericardium in suppurative pericarditis it is advisable to interfere at an early stage and wash out the coagulated fibrin. Normal salt solution is the best fluid to use for this purpose. Mumford in his latest book says:

"In recent years the possibilities of heart surgery, or direct operation dealing with the heart, have been made to appear as important future possibilities. George W. Crile in 1903-4 published an extremely interesting series of experiments and operations on the heart showing that after apparent death in dogs and man, even when a half hour of suspended animation has elapsed, the heart may be stimulated to resume its function by direct rhythmic pressure over the pericardium, or by sub-diaphragmatic massage—the abdomen being opened for the purpose—supplemented by artificial respiration and long-continued infusion of 1 to 50,000 adrenelin solution.

Harvey Cushing working in the Huntarian laboratory of Johns Hopkins University has demonstrated the possibility of producing artificial cardiac lesions by intraventricular incision of the cardiac valves with a resulting recovery from the operation except for the cardiac lesion. This extremely interesting work suggests the possibility of intra-cardiac manipulation for the relief of valvular stenosis.

Theoretic as these considerations may be, the work of such experimenters has proved conclusively that the heart may be approached and handled with boldness. At the same time the practical experience of many

surgeons has shown the reasonableness and importance of operating upon the heart and pericardium for traumatic lesions of these structures. In all of this we are considering a strikingly interesting and little explored field of surgery."

ARTERIO SCLEROSIS WITH SPECIAL REFERENCE TO SYMPTOMS AND PHYSICAL SIGNS.

By L. J. Moorman, M. D., Oklahoma City.

In 1911 Hertz sent out question blanks to physicians in Austria, asking an opinion regarding the factors involved in the production of arterio sclerosis. He received 822 answers and less than one-fourth of them agreed upon any one influence as the main factor. Among the 822 opinions, eleven different influences were suggested as the chief cause.

W. S. Thayer says, "Great as is the importance of arterial changes in relation to many of the ills to which flesh is heir and numerous as have been the anatomical clinical and experimental researches concerning this subject, it must be acknowledged that there is much yet to be learned with regard to the etiology, the manner of development, the nature of the changes in the different parts of the arterial tree, their relation to variations in blood pressure and to visceral disease, as well as concerning the relations of peripheral to central changes; and there are still wide differences of opinion as to the interpretation of some of the observations which have been made."

Quoting Osler, "Discussion is still active on the finer changes in the small vessels in arterio sclerosis. The controversies of the seventies, started by George Johnson, Gull and Sutton, Dickenson and others still rage. Where does the process begin? Is there a true hypertrophy of the muscle fibers? What is the relation of high tension to the sclerosis? Which comes first? Is the primary mischief caused by the action of a toxine in the finer tissues of the capillaries and arteries? Or do these irritating substances cause spasm of the smaller vessels and so raise the tension? What is the relation of the involuntary changes in the vessels in old age to those met with in younger persons? May not increased viscosity of the blood play an important role in causing high tension and arterial strain? We cannot say that any of these problems are finally settled, and the whole question is in the melting pot again in consequence of the remarkable studies on experimental arterio sclerosis. We lack definite knowledge of the finer changes in the capillaries, which are probably always involved, and through which, after all, the essential processes of the circulation are carried on."

It is unfortunate that so little is definitely known about a disease so common and so relentless in its toll of human life. Elsner says, "Arterial changes furnish the fundamental morbid processes in the largest number of deaths after forty." Osler has aptly expressed in the following words a truth conceded by all, "The tragedies of life are largely arterial."

Without further reference to these questions still under controversy, we pass to the consideration of symptoms and physical signs. Arterio-sclerosis may disturb the function of an organ:

1st. By reducing its capacity for work through limitation of its blood supply.

2nd. By necrosis or gangrene through obliteration of vessels where collateral circulation is impossible.

3rd. By vascular spasm, through increased irritability of the smaller vessels.

When the term arterio-sclerosis is employed, no doubt most of us think of a rather corpulent man about fifty-five who has led an active business life, whose exercise consists of his daily trips to and from his office and these perhaps in an automobile or street car with the daily paper in hand; a man who has eaten three hearty meals a day, whose amusements have been confined to social intercourse with friends of like tendencies. At this age he is beginning to experience unpleasant sensations, such as unusual shortness of breath when he runs for his car, a dizzy sensation when he stoops to lace his shoe; he may notice some palpitation and an uneasy feeling about the heart and at the end of the day he may notice some swelling of the ankles. Upon examination, the heart shows slight enlargement, the apex impulse increased and displaced to the left, the pulse is not easily compressed, the radial may be palpated after the pulse is obliterated, the first sound of the heart is prolonged, the second aortic sound is accentuated. The urine may or may not show evidence of kidney change. However, it must not be forgotten that practically the same conditions may be found in a man who has led a very temperate life and whose business has been seasoned with healthy recreation. The same objective signs may be discovered by accident in an individual who has suffered no inconvenience or discomfort. In the study of arterio-sclerosis, one must ever keep in mind its varied manifestations, its wide range of severity, and its possible occurrence in all classes, from infancy to old age.

Thayer has warned us against the tendency to attribute obscure symptoms to arterio-sclerosis merely because of the presence of palpable radials and tortuous temporals. Here, also, it is well to remark, that the absence of demonstrable peripheral arterio-sclerosis does not preclude the possibility of advanced sclerosis of deeper vessels. Under special manifestations we may consider the following:

1st. Nervous system.

2nd. Cardiac.

3rd. Renal.

4th. Abdominal.

5th. Peripheral.

6th. Pulmonary.

7th. Uterine.

1st. Nervous system. The individual suffering from arteriosclerosis may early present a train of symptoms corresponding to neurasthenia. Headache

may be an early symptom, usually associated with high tension and relieved if the tension is reduced. Vertigo is a common symptom and may be excited by exertion or by certain positions of the body. There may be hemiplegia, monoplegia, paraplegia and aphasia, all disappearing in a short time if due to vascular spasm or persisting if due to rupture of the vessel. The greatest danger is from rupture of cerebral vessels with resulting apoplexy or the gradual occlusion of cerebral arteries with necrosis and softening of brain cells and progressive failure of mental powers leading to dementia. Cases of arterio-sclerosis, involving the vessels of the spinal cord have been reported with progressive paraplegia, incontinence of urine and feces, loss of knee jerk, etc. Epileptiform convulsions may occur. Such convulsions developing after middle life should always cause one to suspect arterio-sclerosis. True epilepsy usually develops in early life.

2nd. Cardiac. Valvular and myocardial lesions may result from arterio-sclerosis. Many cases of aortic insufficiency are directly due to sclerotic changes in aorta and valves. The same process may cause incompetency of the mitral valves. The coronary vessels often show advanced sclerosis with narrowed lumen, limiting the blood supply to the myocardium. The heart muscle, already hypertrophied on account of peripheral resistance, begins to show weakness with degeneration. A break in compensation with all the symptoms which accompany dilatation may follow any increased demand upon the weakened heart muscle. Branches of the coronaries may be obliterated by endarteritis or by blocking with embolus, or sudden narrowing may be caused by vascular spasm. All these latter conditions may give rise to distressing attacks of angina pectoris, often proving fatal. If the sclerotic process should involve, either directly or indirectly, the auriculo-ventricular bundle we may have irregularities or even the Stokes-Adams syndrome.

3rd. Renal. The urine may be increased in quantity with low specific gravity, albumen absent or in small amount with hyalin casts and often red blood cells, the small contracted kidney, or it may be normal in quantity with normal or high specific gravity and no albumen. Later albumen may be abundant with numerous casts—arteriosclerotic kidney.

4th. Abdominal. Some one has said, "Happy is he whose splanchnics are normal and are offering no resistance to the circulation." It is believed that arteriosclerosis of these vessels almost invariably causes high tension. There may be a sense of weight or oppression in the epigastrium. Gastric ulcer may be simulated and differentiated only after careful study and continued observation. This condition of the splanchnics may be marked by recurrent attacks of abdominal pain with or without vomiting. These attacks, supposedly due to vascular spasm, may be mistaken for hepatic colic or other abdominal pains.

5th. Peripheral. It is not uncommon to see, as a result of endarteritis obliterans, dry gangrene of a toe or finger or even the whole foot or hand. This gradual cutting off of blood supply is not, as a rule, painful.

One of the most frequent results of arterio-sclerosis of the extremities is the condition known as intermittent claudication. A cramping pain with loss of power brought about by the inability of stiffened and narrowed arteries to meet the demands of an active muscle. Rest promptly restores function and comfort. The inspection and palpation of peripheral vessels, together with the ophthalmoscopic examination and the estimation of blood pressure furnish much valuable information.

6th. Pulmonary. The pulmonary artery may participate in a general arteriosclerosis with physical signs of involvement of the main trunk of the artery and enlargement of the right heart. There is early cyanosis without marked dyspnoea or edema. Repeated hemorrhages from the lungs may occur.

7th. Uterine. Arteriosclerosis of the uterus seems to predispose to uterine hemorrhage. This may manifest itself as menorrhagia or metorrhagia. There is a difference of opinion as to the direct cause of this excessive bleeding, but in all probability it is due to improper muscular contraction resulting from imperfect blood supply.

DISCUSSION.

Dr. White:

A symposium on these subjects necessarily cannot cover the subject in detail, and yet it seems to me that these papers, so far as their titles are concerned have done well. The paper of Dr. Howard interested me very much. Being a little out of my line, and having had no work at all as to the surgery of the heart I do not feel competent to discuss it.

The paper of Dr. Moorman was of special interest and appears to me as being a most excellent one. He lays special stress on the early hardening of the arteries. I think we overlook that. We look for the change in the kidney first thing and often we find that before the arteries manifest any special change, but many times find the hardening of the arteries giving rise to disturbances of the liver and stomach and so on. I do not like to consider arteriosclerosis as a disease. It is a part of the expected change of nature. We have a case on record of a man that lived one hundred and fifty two years and died with no evidence of arteriosclerosis, but that fact does not change the thing at all to my mind. It is a question of how long a man lives whether he will develop arteriosclerosis, and to figure it as a disease I do not think is right. I think the same thing might be applied to the paper as to title, "functional diseases of the heart". The proposition is that I question almost whether we have functional diseases of the heart. As to diseases, I do not believe they exist per se in the heart. A disease in some other part of the body will change the action of the heart, but it is a manifestation of the other trouble; or trouble elsewhere.

Dr. A. P. Presson, Kingfisher:

One state of heart lesion has been brought to my attention within

the last year. I was in consultation with another doctor and did not find anything except a bare murmur and the symptoms of uncompensated mitral sclerosis. They sent for me one night, saying he was having one of his conditions of spasmodic trouble. I put my ear to the chest and listened and I heard this: * * * * * With this clue we found what we did not know before. The man died some weeks afterwards. I had one case of mitral uncompensated. The patient went to California about a year ago. I did not think he would live to get there. He weighed at the time he left two hundred and seventy pounds. He went to Long Beach, California, without any change of treatment that I could see and in less than three months time he lost ninety pounds, and is living there today in reasonable comfort. The only thing that made the change was the going from this climate to that one, and I think he will live for several years, and he could not have lived through the summer if he had stayed here.

Dr. L. A. Riley, Oklahoma City:

This symposium on diseases of the heart and blood vessels is to my notion a very excellent way of getting at these subjects, from the medical side as well as the surgical side. The question of arteriosclerosis in connection with diseases of the heart is one that is consuming more study at the present time than it ever has before. I suppose no cause is more discussed or sought for than the cause of the early prevalence of it, by the most accurate diagnosis under the most accurate mechanical devices.

Arteriosclerosis may be either general or local. Localized arteriosclerosis may occur in any particular part of the anatomy. It may even be in the capillaries; they occasion more resistance than the larger vessels. If one can go past the capillaries into the veins, venous sclerosis is something we know but little about at the present time, but I think it will be developed in the future. It has been generally considered that arteriosclerosis is caused by high blood pressure. That is not necessarily the case. I do not believe the etiology of arteriosclerosis has been very fully emphasized yet, but I believe there must be a primary condition of the arteries which we inherit which makes them more susceptible to become in this condition in some people more than in others, which in some cases makes the arteriosclerosis occur in young people. Of course, we expect any man living long enough will have arteriosclerosis, but those developing in early life must have inherited a deficient condition of the arterial walls, which are more easily irritated by intoxicants, such as alcohol, or typhoid fever or pneumonia or any condition that places an irritative condition on arterial walls. I think the subject of arteriosclerosis is in its infancy now and the high tension under which people are living now may make it more prevalent, and again it may not.

The Chairman:

If there is no further discussion we will call on Dr. Williams. If there is no further discussion by the doctor we will call on Dr. Renfrow.

Dr. Williams:

I came in late, and if there was any discussion on my paper I did not hear it. If there was, I thank you for it.

The Chairman: Dr. Howard?

Dr. Howard: I want to thank the society for receiving my paper and listening to it as nicely as they did.

The Chairman: Dr. Moorman?

Dr. Moorman: I just came in and heard only the discussion of Dr. Riley. I want to thank the society for the opportunity to read the paper and want to state that the symptoms and signs which I tried to bring out and emphasize are those which you get in well-developed cases of arteriosclerosis. I think we should be on the alert for the beginning of arteriosclerosis and especially for those cases of high tension where it is impossible to put your finger on the cause at the time, and by studying those cases we may find something in the daily habits of the individual which may be corrected or some condition which if watched we may be able to stay for a time, at least, the ravages that usually follow. I thank you.



JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION

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ENTERED AT THE POSTOFFICE AT MUSKOGEE, OKLAHOMA AS SECOND CLASS MAIL MATTER, JULY 28, 1912

THIS IS THE OFFICIAL JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION. ALL COMMUNICATIONS SHOULD BE ADDRESSED TO THE JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION, BARNES BUILDING, MUSKOGEE, OKLAHOMA

The editorial department is not responsible for the opinions expressed in the original articles of contributors.

Reprints of original articles will be supplied at actual cost, provided request for them is attached to manuscript or made in sufficient time before publication.

Articles sent this Journal for publication and all those read at the annual meetings of the State Association are the sole property of this Journal. The Journal relies on each individual contributor's strict adherence to this well-known rule of medical journalism. In the event an article sent this Journal for publication is published before appearance in the Journal, the manuscript will be returned to the writer.

Failure to receive the Journal should call for immediate notification of the editor, 507 Barnes Building, Muskogee, Okla.

Local news of possible interest to the medical profession, notes on removals, changes in address, deaths and weddings will be gratefully received.

Advertising of articles, drugs or compounds not approved by the Council on Pharmacy of the A. M. A. will not be accepted.

Advertising rates will be supplied on application. It is suggested that wherever possible members of the State Association should patronize our advertisers in preference to others as a matter of fair reciprocity.

EDITORIAL**A CONTRAST IN MEDICAL PUBLICATIONS.**

Last month we had the pleasure of calling attention to the high class of the Journal of the Southern Medical Association and its advertising pages.

We regret to have to note a contrast on analyzing a journal familiar to many Oklahoma readers. The Medical Herald, the official organ of the Medical Association of the Southwest, has long been an object of comment for its laxness in the acceptance of questionable advertising. That this laxness will eventually build up a defense for inferior products and render the physician users of them callous along ethical lines, is evident from the tenor of editorials in this publication.

The August issue of the Journal contains a criticism of the Carnegie foundation and the A. M. A. in their efforts to improve the condition of our medical colleges.

The writer of this editorial, Dr. T. D. Crothers of Hartford, Conn., a contributing editor, bemoans the fact that the medical colleges of the United States have been reduced to 117; that it is proposed to make a

reduction of 25 more. Dr. Crothers objects to reports of inefficiency of medical institutions, but suggests no remedy.

In the September issue of his Journal, he objects to the method of publication of papers in the Journal of the A. M. A., and intimates that there is a trust or combination for the purpose of limiting the output of that Journal to those who are popular with the section officers.

It is a notorious fact that preachers often overlook their greatest field of activity in their own immediate circle. That reformers overlook in their own neighborhood a fertile field for work, and in this connection we have only to call attention of this able man to his own medical publication and incidentally, we desire also to call the attention of the Oklahoma readers to the advertising columns of this journal and have to suggest that they use their influence to reform its advertising pages.

The August issue contains the advertisements of 64 drugs or compounds; of the 64, 55 have either not been accepted by the Council on Pharmacy and Chemistry of the A. M. A., have been thoroughly tested and failed, or found wanting in various degrees.

Among the oldest offenders, we find Anasarcin, Cactina Pellets, Hayden's Viburnum Compound, Triacol, Farwell & Rhines Gluten Flour, Pepto-Mangan, Gude, Nephritin, Sinkina and many others.

Dr. Crothers is an Alienist and Neurologist, we understand, of some note; we wonder how much "Neurilla" manufactured by the Dad Chemical Company of New York, he uses in his practice? How much "Neuro-sine" he orders dosed out in his Hartford hospital? An inspection of the advertising pages of this journal with which he is connected will convince anyone that it is a most notorious offender against ethics in carrying these advertisements to the medical profession existing today in this country. We note advertisement of compounds that were guilty of various shortcomings more than ten years ago, and that have not improved in that time. A great many of the 55 undesirable compounds have been criticised either by direct report of the Council or editorially in the Journal of the A. M. A. more than once. Most of them are known to be rank frauds, others claimers of virtues that never existed, the remainder just indifferent products.

Just as long as the unthinking physician supports these medical publications by subscribing for them, or using the products advertised in them, he will continue to do himself an injustice, and oftentimes a severe one.

We prayerfully commend the advertising pages of the Medical Herald to Dr. Crothers and suggest that there his explosive activity will find something worth working on.

ACTION OF TUBERCULOSIS.

The National Association for the study and prevention of tuberculosis have issued a statement of the activity for various State Legislatures with reference to the prevention and treatment of tuberculosis.

The statement shows that forty-one State Legislatures enacted laws dealing with tuberculosis, thirty-four states considered the prevention of the disease. During the year 1913, more than five million dollars was set aside on account of the prevention of tuberculosis, most of which was for the maintenance of state institutions.

There are at this time thirty-nine state institutions in thirty-one states. The appropriations on this account by Congress will reach one million dollars, this going to the maintenance of hospitals of the United States Public Health Service, the Army and Navy and the tubercular hospital of the District of Columbia.

Colorado passed an act requiring registration of tubercular cases. Minnesota and Wisconsin acts, subsidizing local hospitals. Indiana, creating county hospitals, while Ohio and California established bureaus for the prevention of tuberculosis.

DOING SURGERY WITH A THERAPEUTIC LAMP.

We have about decided that criticism of Osteopaths, Christian Scientists and Faith Healers is all out of place in medical journals until we have placed some of our own writers where they belong.

Every well balanced physician knows that certain conditions are surgical and practically amenable to surgery only. The fact that a ruptured gall-bladder or appendicitis breaks its way into the intestine and drains the patient to good health should not lead a physician to expect them all to do it. The subsidence of an inflammatory condition, which usually requires surgical relief, does not justify us to trust that rare occurrence to happen.

A writer in the "Hahemannian Monthly" for July, 1913, collects and publishes with great gravity the number of cures of surgical conditions with the therapeutic lamp. Case after case of appendicitis is reported as cured and he concludes that the majority of cases of appendicitis, where there is no foreign substance or pus has not formed, can be cured with a therapeutic lamp. Just how many he would kill, he does not estimate.

The writer flutes up and down the field of infection from appendicitis, abscessed teeth, through blood poisoning, erysipelas, and various others, down to septicaemia and treats them all with his lamp. Of course, not so many will accept this doctrine with any seriousness, but it might fall occasionally on fertile soil and do the patient and the physician great harm.

We believe that a bag of ice placed over the appendix by the Christian Scientist will be found more efficacious than the use of this lamp in such cases by a physician, and neither of them are to be considered as having much ultimate effect on the condition which is to be relieved properly by operation only, as a general rule.

PERSONAL AND GENERAL NEWS

Press reports state that Dr. W. C. Graves of McAlester recently suffered from a stroke of paralysis.

Dr. Claude Chambers of Claremore has been appointed physician in the Indian Medical Service. He is stationed at Tahatchie, N. M.

Dr. S. N. Mayberry of Enid spent August at the Mayo Clinic.

Dr. F. B. Fite, Muskogee, attended the International Hygienic Conference in Buffalo as a delegate from Oklahoma.

Dr. J. W. Hoover of Sapulpa and Mrs. K. Lyford were married in Kansas City September 10th.

Dr. Joseph E. Brookshire of Nowata and Miss Anna C. Steward were married in Colorado Springs August 23rd. They will make their future home in Nowata.

Dr. Leigh F. Watson of Oklahoma City and Miss Dora Lowe Watson were married September 15th at Fairmount, West Virginia. They will be at home in Oklahoma City after October first.

McIntosh County Medical Society met in Checotah September 9th. The Society presented a clinic of six cases of pellagra. Dr. J. C. Watkins read a paper on Pellagra which was discussed at length. The visiting physicians were Drs White, Montgomery, Newton and Thompson of Muskogee. The Society entertained the visitors with a dinner at the Gentry Hotel.

Dr. Geo. A. Nieman of Ponca City and Miss Grace Taliaferro of Atchison, Kansas, were recently married.

NORTHEAST OKLAHOMA MEDICAL SOCIETY PROGRAM

Bartlesville, Tuesday, October 14, 1913.

Vaccines in Surgery, C. M. Ament, Sapulpa.

Incontinence in the Female—Prognosis and Treatment, G. A. Wall, Oklahoma City.

One Thousand Cases of Labor, P. H. Mayginnis, Tulsa.

Retrospect of Sixteen Hundred Labor Cases, J. Donohoo, Afton.

Care of the Eye in the Newly-born, W. A. Cook, Tulsa.

Intratracheal Anesthesia—Demonstration on Dog, B. W. Freer, Nowata.

Phylacogenin Rheumatism, C. W. Beson, Claremore.

Bronchial Asthma and Its Treatment, R. A. Douglas, Collinsville.

REPORT OF EXAMINATION HELD AT GUTHRIE, JULY 8-10, 1913, BY OKLAHOMA STATE BOARD OF MEDICAL EXAMINERS.

Albert D. Wehinger.....	Texas Christian University.....	1913	80
Joseph C. Dunn.....	Eclectic M. C., Cincinnati.....	1897	82
Casper A. Hicks.....	Memphis Hospital Medical College.....	1913	81
Robt. E. Jamison.....	Marquette University.....	1912	75
Henry F. Knabb.....	St. Louis University.....	1911	77
Harry A. K. Hill.....	Bennett.....	1913	81
Owen K. Haydon.....	Kansas Medical College.....	1913	84
Everard B. Hamilton.....	Tulane.....	1913	85
Joseph Edward Gray.....	University Medical College, Kansas City.....	1913	85
Oscar R. Crogan.....	Texas Christian University.....	1913	82
Albert N. Earnest.....	Memphis Hospital Medical College.....	1913	80
May Adah Drew.....	University of Oklahoma.....	1913	87
Geo. Henry Chulow.....	Western Reserve.....	1912	84
Daniel W. Carroll.....	Vanderbilt.....	1913	79
Charles B. Barker.....	Chicago College of M. & S.....	1912	88
Alvin Ray Wiley.....	University of Oklahoma.....	1913	86
Asa Wright.....	University of Oklahoma.....	1913	81
Wesley I. Wimberly.....	Tulane.....	1913	84
Vernon L. McPherson.....	University of Arkansas.....	1913	76
E. Catherine Threlkeld.....	American Medical College.....	1913	86
Joseph P. Lee.....	St. Louis College P. & S.....	1913	79
Thomas LeRoy Lauderdale.....	University of Oklahoma.....	1913	84
Elmer Allen Leisure.....	Chicago College M. & S.....	1913	90
Wilson Hewette Lane.....	Chicago College M. & S.....	1913	84
Loyal M. Martin.....	Rush.....	1913	87
Elam J. Nienstedt.....	American Medical College.....	1913	85
Harry P. Price.....	University of Oklahoma.....	1913	85
James E. Parramore.....	Memphis Hospital Medical College.....	1913	86
James Willson Rollo.....	University of Oklahoma.....	1913	84
Robert H. Riley.....	University of Oklahoma.....	1913	89
Harry James Sims.....	University of Tennessee.....	1913	83
R. Earle Smith.....	University of Oklahoma.....	1913	82
P. Franklin Smith.....	Meharry Medical College.....	1913	82
Isaac Walton Rogers.....	Chattanooga Medical College.....	1906	70

The following failed to make a passing grade:

Memphis Hospital Medical College.....	1911	66
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The following have been licensed by reciprocity since the last report:

John B. Chapman.....	Kentucky School of Medicine.....	1877	Texas
Salathiel L. Hollingsworth.....	Tulane.....	1905	Miss.
Geo. Oscar Marsh.....	Tulane.....	1895	Ark.
Henry S. Drummond.....	Vanderbilt.....	1912	Ark.
Francis Taylor Isbell.....	Memphis Hospital Medical College.....	1901	Ark.
Thomas J. Stout.....	University of Nashville.....	1901	Ark.
Clarence B. Billingsley.....	Memphis Hospital Medical College.....	1910	Miss.
Fannie Stone-English.....	American School of Osteo.....	1911	Mo.
Charlie Huse Hale.....	Kentucky School of Medicine.....	1908	N. Mex.
Marion Albert Clark.....	Meharry.....	1910	Tenn.
Edward Forrest Ellis.....	Missouri Medical College.....	1885	Ark.
Charles Frazier Clark.....	University of Illinois.....	1907	Neb.
Wm. Patrick Lipscomb.....	Vanderbilt.....	1911	Tenn.
Turner Fred Roberts.....	University of Louisville.....	1898	Texas
Archie Bee.....	Starling.....	1890	W. Va.
Lawrence H. Hill.....	Washington University.....	1907	Ark.
James L. Colquit.....	Vanderbilt.....	1887	Texas
Roscoe M. Jernigan.....	American Medical College (Ec.).....	1912	Ark.
Claude Edward Laws.....	Chicago College M. & S. (Ec.).....	1903	Ark.
Isaac H. LaMar.....	Ec. Medical College, Cincinnati.....	1886	Texas
Francis Dameron Garrett.....	American School of Osteo.....	1899	Mo.
Novel Walter Campbell.....	Kentucky School of Medicine.....	1894	Texas
Bruce Walter Young.....	University of Louisville.....	1909	N. Mex.

NEW BOOKS

SURGICAL CLINICS OF JOHN B. MURPHY, M. D.

Volume II, Number IV. (August, 1913.)

The Surgical Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago, Volume II, Number IV. (August, 1913.) Octavo of 206 pages, 49 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Published Bi-Monthly. Price per year: Paper, \$8; Cloth, \$12.

This number of Murphy's Clinics is believed extremely interesting. Notwithstanding the fact that there is a great deal of repetition in his article on "Vaccine and Serum Therapy" it is interesting and instructive. Without going into laboratory detail it gives one a clear and concise idea of these preparations and methods of administration.

The skiagraph showing the blood supply of various joints is a work of art and commendable. In his lecture on the care of patients after spinal injuries he emphasizes the trophic disturbances which accompany lesion of this character and admonishes the attending physician to refrain from the use of the catheter due to the fact that cystitis and possibly more serious complications invariably follow such action. The reported joint cases are similar to many he has described in previous numbers, but his dealing with the bone cyst of the radius is rather unique and a point which should prove of great value to the general practitioner or surgeon who has not that advantage of the large amount of hospital work enjoyed by surgeons in the larger cities.

MARRIAGE AND GENETICS.

Laws of Human Breeding and Applied Eugenics. By Charles A. L. Reed, M. D., F. C. S. pp. 182. (5 1-4x7 1-4.) Price, including Postage, \$1. Subscription only. The Galton Press, Publishers, Cincinnati, Ohio.

This is a stirring, practical and comprehensive appeal to the human race to improve itself by proper breeding. It is an appeal by one of the well known and able men of the profession to his fellows to interest themselves in proper marriage and genetics. An appeal to interdict the marriage of the syphilitic, gonorrhoeic, tuberculous, epileptic and other reducers of the high standard of mankind.

It is full of scientific facts relative to mis-mating and the quotations of authorities on such subjects are numerous and convincing.

When mankind thinks of these things they will devise remedies, the task we have to accomplish is to point out to them the dangers of the situation and awaken them to a realization of their responsibilities.

The author, his book and the subject need no introduction to many of the profession, but to others they do. It is sufficient to say that every true physician should read this book and co-operate with teachers, ministers and humanitarians generally in a wide propaganda of the subject.

Malaria, Etiology, Pathology, Diagnosis, Prophylaxis and Treatment. By Graham E. Henson, M. D., Member of the American Medical Association, Florida Medical Association, Southern Medical Association, American Society of Tropical Medicine, Medical Reserve Corps, United States Army (Non-Active List) with introduction by Charles C. B. Bass, M. D., Professor of Experimental Medicine, Medical Department Tulane University, New Orleans. Illustrated, Cloth, 190 pages, price \$2.50, C. V. Mosby Company, St. Louis, 1913.

This is an able monograph on the subject of malaria in its many phases. Aside from the careful handling of the questions of etiology, pathology, prophylaxis and symptomatology the book is especially valuable in its suggestions as to treatment. Those who have had experience in the treatment of obstinate malarial infections will readily agree with the author in his suggestions as to the hypodermatic use of quinine salts as being the mode of superiority especially in intractable and pernicious types.

The Propaganda for Reform in Property Medicines, from the press of the American Medical Association, Chicago, Ill. Paper, 277 pages, price 15 cents. Cloth 25c.

This little volume is the result of the recent activity of the Council on Pharmacy and Chemistry of the A. M. A. and is the 7th edition of a similar work. We note that especial attention is given to the claims of the exploiters of Cactina, Cactus and Cactus Grandiflorus and to our friendly old fraud Tongaline and its varied family of substitute frauds.

Write for a copy of this little work if you have not seen it and have not heretofore been interested in that branch of medicine and have your eyes opened to many of the little rascally tricks going on around you in the interests of the patent medicine fakirs.

Medical and Surgical Reports of the Protestant Episcopal Church in Philadelphia, Volume 1 edited by Astley P. C. Ashhurst, M. D. Cloth 406 pages finely illustrated.

This volume is rich in the statistical matter of large hospital experience and work and in addition contains many special articles by the hospital staff among which may be noted one on fractures of the forearm, the radius and allied fractures and dislocations. An article of great detail dealing with the Rational Treatment of Tetanus which is most exhaustive and thorough.

The original matter in this book is good but it will probably be considered that it would have been better for the profession had it been entitled *The Clinics of The Episcopal Hospital in Philadelphia* with an elimination of all statistical matter as to number of cases treated, etc. This would, of course, no longer make it a report in the true sense, but it would have eliminated considerable matter for which the busy physician does not care.

C. V. Mosby Company, St. Louis, have recently issued a very complete catalogue of the medical works issued from their press and other medical publications for which they are agents.

The edition is handsomely gotten up containing a very interesting color plate from the new second edition of Tuley's book on the "Diseases of Children." The catalogue will be sent free of charge to those physicians requesting it.

BIOLOGICAL PRODUCTS AND HOW TO USE THEM.

Journal of Oklahoma State Medical Association,
Muskogee, Oklahoma.

Gentlemen:

We shall be pleased to send on request to any of your readers, without cost, a copy of the booklet enclosed on "Biological Products and How to Use Them." A notice if this fact in your September issue will be very much appreciated.

Very truly yours,

THE ABBOTT ALKALOIDAL COMPANY.

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C. R. Day, Security Building, Oklahoma City, 1913.

John W. Duke, Guthrie, Oklahoma, 1913-14-15.

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A. D. Young, Oklahoma City, for two years, 1912-13.

Geo. A. Boyle, Enid, for one year, 1912.

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Next meeting Muskogee, Oct. 14-16, 1913.

Address all communications to the Secretary, Dr. J. W. Duke.

THE JOURNAL

of the



Oklahoma State Medical Association.

VOL. VI

MUSKOGEE, OKLAHOMA, NOVEMBER, 1913

No. 6

DR. CLAUDE A. THOMPSON, EDITOR-IN-CHIEF.

THE PATHOLOGICAL THYROID GLAND AND ITS TREATMENT.

Dr. F. Y. Cronk, Guthrie, Oklahoma.

A most interesting field of medicine into which physicians roam is the disease originating from a glandular element of the human body.

Duct and ductless glands alike, by their functional activity, cause us to rack the remotest corners of our medical storehouse for knowledge to accuse and convict a definite gland of its offense. The field is large and I shall confine my remarks to that of the thyroid and its often inseparable body, the parathyroid.

The thyroid gland develops on the dorsal side of the third and fourth bronchial pouch. In the descent of this body, especially the superior portion, anomalies often arise through delay. In early development of the hyoid, a portion of the gland may lay above it, or it may remain in close proximity to the tongue. Again, the thymus gland, which develops in the third groove, may carry with it a portion of the thyroid to a sub-sternal or intrathoracic position and give us a distorted picture of a real thyroid.

It is a very vascular organ, being supplied directly from the large neck vessels. The parathyroids, as well, are vascular and lie near the division of the large thyroid vessels into the smaller branches supplying the gland substance of the thyroid; yet, I feel one may safely remove practically the entire thyroid, leaving only a small amount of gland tissue at two of the four so-called poles.

I have not experienced the unpleasant and anxious hours following the development of tetany from parathyroid injury or removal, and I trust never shall, though it happens to the most careful and conservative surgeons once in a great while.

Dr. Brown, of Australia, is very strong in his conclusions of the importance of nonremoval of this seemingly insignificant gland. He reports a case of tetany, developing four days after a second operation, in which he removed practically the whole of an exophthalmic gland

(first operation six months previous in which there was removed one lobe only), and attributes it to his acceptance of some recent articles by surgeons minimizing the importance of the parathyroid.

Much stress was laid upon the definite function of these small glands by my former teachers, Drs. Halsted, Welsh, Bloodgood and Mac-Callum, and to them I am grateful for my respect of this small gland.

The relationship between the thyroid and thymus glands is quite well established. Garre and Matti claim, from analyses of patients with Basedow's disease in which thyroidectomy was done, that a very large percentage have a persistent thymus (95% and 76½%, respectively).

A certain amount of thyroid gland secretion is necessary for body metabolism, and just what changes this glandular activity we are not sure. True, an under secretion, even though a large gland be present, produces the well-known picture of myxoedema—Cretinism. Contrasting with this, an over secretion, and we picture the irritable patience of Graves' disease.

The iodine content is altered by this varied condition, that contained within the under secreting gland being increased, while in Basedow's disease the glandular amount is decreased but that of the blood increased.

Until we locate some cause beyond the gland itself, our efforts must begin with the regulating of its secretion. We have both acquired and congenital conditions with which to deal; the former most common.

There is a swelling of the thyroid often noted in young girls at puberty, and a similar condition sometimes develops during pregnancy. This is temporary, as a rule, and thyroid extract may be given with advantage.

The simple adenoma is what we might term an exaggeration of the normal thyroid. The foetal adenoma we may speak of as an undeveloped gland, the vesicles filled with columnar cells and contain very little colloid.

The colloid goitre (cystico-colloid as spoken of by Dr. Shepard) forms some of our largest neck tumors. Cysts of varying size and contents are dealt with. It is interesting to note the sudden enlargement of a cystic area from hemorrhage, and occasionally most distressing symptoms arise from pressure on the trachea or respiratory nerves. Systemic disturbances are few and surgical interference is instituted for relief of pressure or possibly cosmetic effects alone.

Thyroiditis—acute inflammatory conditions—are rare. They should not be forgotten, however, as tuberculosis, syphilis, and the metastases in typhoid and scarlet fevers, diphtheria, influenza and echinococcus disease.

Epithelial hyperplasia in some glands is marked and this is the type found in patients suffering from hyperthyroidism.

The malignant goitre is no more promising than cancer elsewhere, and it is only the early operation that promises permanent relief.

I should like to speak a little more in detail of the change taking place in the thyroid in patients with Graves' disease—a condition in which alarming symptoms of hyperthyroidism develop. It is a surgical disease and, while this does not mean operation in every case, the patient should be under the supervision of a man who is competent to institute any form of treatment that the individual case may demand. A certain amount of medical treatment is necessary in all cases, and of all remedies nothing is so important as long periods of rest in bed. No one drug seems beneficial in all cases, so we must rely on fresh air and a careful diet as the main accessories to rest. Some patients so much improve under this treatment as to refuse further immediate interference. Beware of the recurrent attack, for it is this that cause the degenerative changes in the heart muscle, brain and liver cells. It is the recurrent attack that causes the permanent tissue damage.

J. H. Jacobson, in his recent article, concludes, after a careful study of thyroid work by leading men of the world, that the successful treatment of Basedow's disease by measures directed toward the thyroid itself, as well as serum therapy, proves the thyroid origin of the disease.

There are glands of which we speak as having reached the third stage, or "myxoedematous." Too much stress cannot be laid upon this condition, for even under medical treatment athyroidism may develop. Thyroid surgery would, undoubtedly, be discredited, had the knife been used upon such a gland.

No one can successfully treat this condition who has not studied the progress in detail. I believe the majority of these cases do need some form of operative procedure and it is the man who has had the opportunity of seeing and studying this progress, with his own, and knowledge of others, experiences, that curves the knife to the smallest interference. In young girls it is sometimes necessary to ligate one or both superior thyroid vessels, and while with the advanced cases, excision of one lobe, three-quarters the entire gland, and even more at times, is sometimes necessary for a cure.

The percentage of cures is above 70, assuming a cure to be the disappearance of thyreotoxic symptoms and cardiac irritability, and the patient able to resume her ordinary work. The persistent exophthalmos not being considered. Marked improvement is noted in from 20 to 22%. The operative mortality in the large clinics is less than 3½%, including all classes of patients. These figures leave only a very small percentage of patients treated surgically unimproved.

We have an acute type, and as well, a slowly developing Basedow's disease after the existence of a colloid goitre for years. The acute exacerbations of this hyperthyroidism is serious, though it is the existence of this abnormal thyroid secretion in the blood for a definite period that causes a degeneration of heart muscle, liver and brain cells, and renders any treatment more grave. Here is where the keenest judgment of the surgeon is demanded.

In all cases of Graves' disease, the exact extent of operative interference must be determined before operation. This is purely a proposition for the experienced man. Halstead states that although thousands of operations have been performed the world over for the cure of Graves' disease, we are not as yet in a position to state how much of the thyroid gland should be removed in any given case. In the early cases, young individuals, more especially where surgery is necessary, and in the far advanced patient, ligation of the thyroid arteries is indicated, while in the stages between, the amount of gland tissue removed is most important.

I compare the cases of acute exacerbations to recurrent attacks of appendicitis. We can, in most cases, elicit a history of similar attacks, and with the rest, physically and mentally, the patient has seemingly recovered. The interval operation to remove the cause of the hyperthyroidism is the treatment of choice, for each attack leaves its impression permanently upon certain tissues. We cannot cure the degenerated muscle and repair the damaged cells; but we can prevent further changes by early intervention.

The physis element is a great factor at all times, and excitement must be guarded against. Ether by the drop method is the anesthetic of preference, proceeded one-half hour by hypodermic of morphia and atropia. It should be started promptly when the patient reaches the anesthetising room, and even in the advanced cases alarming symptoms very seldom arise. The pulse rate will be little accelerated after the excitement stage. In the far advanced patients the use of local anesthesia combined with the general, thus blocking any impulse to the brain, reduces the element of shock to a minimum.

Conditions that have once produced this glandular activity may, even after partial extirpation, cause a recurrence of symptoms, and hypertrophy of the remaining thyroid tissue.

Following operative interference, it is our duty to teach patients how to live before they throw off the band of obedience, in order that the thyroid may have its proper place in surgery.

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CHOLELITHIASIS, CHOLECYSTITIS AND CHOLANGEITIS.

Dr. D. F. Stough, Geary, Oklahoma.

We are so frequently called upon to differentiate between the diseases of the gall bladder and its ducts, and the diseases of neighboring organs, that I have chosen for my subject, "Cholelithiasis, Cholecystitis and Cholangitis." I will associate these three together because nature has done so as to cause and treatment and to a large extent in their symptomatology. Our chief difficulty lies, not so much in what should be done in the way of treatment but, rather, in the making of an accurate diagnosis.

All surgeons know that the abdomen is frequently opened in an apparent plain case without finding any disease of the gall bladder or the bile passages. A few of these may be accounted for by the supposition that only one stone was present and that it had passed into the intestine. More frequently does he find those that have been overlooked, neglected or even unsuspected for years, and only come to him when it is either too late or the case has become so greatly complicated that the patient has been placed in imminent danger.

We will consider the subject under four heads—etiology, symptomatology, differential diagnosis and treatment.

The etiology may be summed up in two words, "some infection." Cholecystitis and cholangitis may exist without the formation of stones, but in no case are stones formed except as the result of an infection. The bacteria most commonly found are the colon, typhoid and influenza bacilli, and the staphylococci, streptococci and pneumococci. It may be the sequelae of most of the infectious diseases, among which I will mention typhoid, pneumonia, influenza, dysentery, puerperal infection, pyemia, cholera and malaria, and also any acute or chronic inflammation of the upper intestinal tract. The germs may be carried to the field by the blood current, or may ascend from the duodenum. Trauma may be indirectly an exciting cause. There is no doubt in my mind that there is a special diathesis present in some persons that leads to the formation of concretions, not only biliary but also of other varieties.

Symptoms. One or more stones may be present in the gall bladder, and as long as they remain quiescent will cause but few if any symptoms. There may be a slight tenderness over the gall bladder with or without digestive disturbance. Very rarely the stones may be palpated. Often, however, they are not suspected till discovered at some other operation. Stones may pass through the bile passages without a sign of its presence. It is when they obstruct the passage that we have what is known as "biliary colic." Then the pain is sharp, cutting and paroxysmal, radiating to the right shoulder, straight through to the back and across the stomach. The pain is severest about three inches below the ensiform cartilage and two or three inches to the right of the median line. The onset is sudden, and often no cause can be assigned for it, although it is more common after a full meal or some sudden exertion. Nausea and

vomiting are usually present. There is a rigidity of the upper segment of the right rectus muscle. If an inflammation exists we will have fever, and sometimes a slight chill. A blood examination will show a leucocytosis. When the infection is limited to the gall bladder the fever is low, rarely going above 101. If the infection is lower down, the fever will be higher, a chill more common, and the leucocytosis more pronounced. The presence of jaundice with the above symptoms or the finding of a stone is pathognomonic. When jaundice is present the obstruction is in the common duct. Occasionally a stone may have a valve-like action, causing intermittent jaundice. A chronic obstruction of the common duct—whether due to stone or inflammation—causes an intense persistent jaundice. The pain is intense and is referred to the liver. Recurrent chills every second, third or fourth day, followed by high fever, is common. This condition is known as Charcot's intermittant fever. It is accompanied with great prostration and profuse sweating. If the condition is suppurative, the symptoms are intensified, fever is remittant, grave constitutional disturbances develop, with all the indications of a septicemia or a pyemia, and the disease goes rapidly on to a fatal termination.

Diagnosis-Differential.—When the gall bladder is obstructed and is full of fluid, the tenderness can be elicited by having the patient make a deep expiration, then hook the fingers deeply over the right costal arch of the ninth rib, then instruct him to take a deep inspiration. The sudden disappearance of all symptoms between attacks indicates the presence of a stone. Dr. Murphy, in his *Surgical Clinic*, Vol. I, No. 3, recommends hammer stroke percussion for acute infections of the gall bladder, or for acute obstruction of the common or cystic duct, with or without infection, in the following words: "The examiner sitting on the right side of the recumbent patient, presses the tip of the second finger of his left hand, flexed at a right angle, firmly up under the costal arch at the tip of the ninth cartilage. The patient is instructed to take a deep breath, and at the height of the inspiration, when the gall bladder is forced below the costal guard, the flexed finger is struck forcibly with the ulnar side of the open right hand of the examiner, and if there is an inflammation or a retention in the biliary tract, the patient will announce that the blow caused him severe pain."

There are many other diseases of the abdomen which at times have so many of their symptoms similar to those mentioned that we often find it very difficult to differentiate between them. A clear cut case of appendicitis should not confuse us, but when the appendix is abnormally high or the pain is referred to the right hypochondriac region, or in those cases where the gall bladder is low and the pain and tenderness is not far from McBurney's point, the case is not so simple. However, the onset of appendicitis is usually slower, and the pains are more scattered, being at first general abdominal pains and taking from twelve to twenty-four hours to localize. The pain is then lower and less pyrexial, more tender to pressure, and the larger amount of rigidity is over the lower seg-

ment of the right rectus muscle. On the other hand, the chill is more common and more pronounced, the fever higher and more irregular in infections of the bile passages. The pain radiates to the right shoulder instead of down, to the right hypogastric and to the back instead of the umbilicus. The appearance of jaundice or the finding of a stone will clear the diagnosis.

Gastralgia is more common in nervous people and the pain is more general. It comes on more rapidly and leaves quicker, with less disturbance left behind. Pressure affords a measure of relief instead of increasing pain. Vomiting likewise eases the pain; digestion is rarely delayed; hunger often accompanies or follows an attack; there is no fever; there is usually a history of several similar attacks with no material effect on the general health. There is usually a history of other neuralgias and often you can find other stigmata of hysteria. Ulcers of the stomach can be differentiated by the relation of the pain to the time of eating and by the examination of the stomach contents. The same may be said of carcinoma of the stomach.

We frequently meet with cases of intercostal neuralgias where the terminal nerves spread over the region of the gall bladder, especially in neurasthenic females. We do not find fever, jaundice or chills, and rarely any impairment of digestion. The pain is severest on shallow pressure, and can be traced along the course of the nerve. We can usually find three tender spots—where the nerve has its exit from the spine, at the angle of the rib, and where it spreads out at its terminus in the skin.

In carcinoma of the head of the pancreas, emaciation is very rapid, the jaundice is constant and deep, ascites is always present, there is neither chill nor fever, or any history of colicky pains. A tumor can usually be palpated, which will be obscured by an inflation of the transverse colon.

In acute pancreatitis, constipation or rather obstipation is always present; fat globules can be demonstrated in the stools; the pain is lower and more in the median line; the pain is more severe and likely to cause a collapse of the patient, and is followed with a distention of the upper abdomen with flatus. In duodenal ulcer, the pain comes on from three to five hours after eating, and it is of a burning and gnawing character; the pain is lower than that of infection of the bile passages, and a tumor can often be palpated. If a perforation takes place, all the symptoms of a general peritonitis will follow.

In malignant diseases of the gall bladder, we can usually elicit a history of long standing trouble in the region of that organ, followed with the rapid onset of cachexia, and later icterus and ascites with rapid emaciation. The pain is heavy and dull, and there is no fever unless complicated by an infection. In right-sided renal colic, the pain is lower, more lateral, and radiates down the groin, along the course of the ureter into the testicle. The testicle is very tender and is often drawn up. In intestinal colic, the pain is about the umbilicus and is relieved by the

passage of flatus; it is not accompanied with vomiting or jaundice. In females there may be reflex colicky pains due to disease of the ovaries or uterus. A careful examination of the pelvic organs will clear the diagnosis. In some cases it is impossible to clear up a doubtful case without an exploratory incision, and as there is but little danger in opening the abdomen, we are justified in doing so, if necessary.

Treatment.—The treatment may be divided into prophylaxis, palliative and curative. It is questionable how much may be reasonably expected from prophylactic treatment. However, as gall stones and the diseases of the bile passages are the result of an infection, it is advisable in those diseases most liable to be followed by such infection to administer some drug that will keep the bile passages aseptic. If we have such a drug, it is hexamethylenamin, which is secreted with the bile. The use of the bile salts, glycocholate and taurocholate of soda, render the bile more fluid, lessens the danger of catarrhal inflammation, and should be used in cases of hepatic torpor. They are beneficial in all cases of inflammation of the ducts and lessen the liability of stone formation. The waters of some of the springs at Carlsbad have a similar effect. An attack of colic may be relieved by hot application, or it may be necessary to resort to an opiate. I then prefer the hypodermic use of a tablet consisting of morphine 1-4 gr., and scopolomine 1-100 gr. There is no drug that will dissolve the stone when once formed, and as a well-seated infection will seldom yield except to drainage, it is advisable to operate in all cases unless contraindicated by some complication. Delay is dangerous. The constant irritation of a gall stone leads to malignancy. Also there is danger of perforation with general peritonitis; or it may lead to abscesses of the liver or a septicemia.

The operation usually performed is that of opening and drainage. A few years ago many operators preferred the removal of the gall bladder in all suitable cases; the pendulum is again swinging back and the drainage operation is preferred by most surgeons. I will not go into the technique of the operations, as all works on surgery cover the subject. I am indebted to Anders' "Practice of Medicine," Kemp's "Diseases of the Stomach and Intestines," Eisendrath's "Surgical Diagnosis," and Murphy's "Surgical Clinics," which I used as references.

DISCUSSION.

Dr. Robertson:—It seems to me as though a paper of that character should be discussed pretty thoroughly, because it is something that all doctors, as well as surgeons, run up against in their practice. There is no doctor who does surgery but what has a number of gall bladder cases. Many times these cases are very complicated and it is very hard to determine just the method of procedure. I am glad that the doctor brought out the difficulty of diagnosis. I have a case at home now convalescing, where the man is a shoe merchant by occupation and has been in trouble practically all of his life. About six weeks ago he fell on the floor unconscious. His family physician was called, he was taken home,

regained consciousness and a diagnosis was made of a ruptured appendix, with probable rupture of gall bladder. The fact is, the doctor did not know what the matter was. He had a big abscess behind the bladder and the abscess was full of what is called coffee ground bile. I was called to see him two weeks after he fell. He had a temperature of $103\frac{1}{2}$ and was very tender about the gall bladder. Even then it was a question of whether he had a ruptured appendix, a gall bladder infection or simply an abscess. We took that man to the hospital on the Sunday after I saw him and I did a laparotomy. We put a drain in the gall bladder and drained it and found no stones. About three weeks after, we moved him to his home and about a week after that his temperature began to rise again. His temperature had been normal for about a week. I placed him under an anesthetic and with my gloved hands broke open the old sore. The temperature remained about three above, and one morning I found the dressing and patient saturated with pus. Probing the wound, I found it led to the right and behind the bladder. It is a question whether that cavity had been originally opened and drained or whether it was a new infection. The fact I wanted to make was the diagnosis in this case was very difficult. It may have origin in stomach trouble. He had had indigestion for five years previous. The gall bladder was thick and the usual symptoms that follow a long train of stomach disorders is usually the history in these cases. We do not often find stones where we expect to find them and doctors can never be sure in diagnosing gall bladder troubles.

Dr. Bowling:—I have had a little experience in gall bladder work and I find, too, that there is a great deal of trouble in making the diagnosis. Some surgeons have said that after making a diagnosis that the treatment is certain, but there are several things in the diagnosis that I believe the doctor has failed to emphasize that should be brought out. I find a great many patients having stomach trouble that they ascribe to stomach trouble. There is one doctor I know (I do not know whether he is here or not) who had bladder trouble for twenty years. They operated on him and removed 500 stones. Three-fourths of those affected with gall bladder trouble are women. Sometimes you have adhesions pulling on the stomach. It is due to the gall bladder having lymphatics and full lymph channels as it passes down into the common duct. Then you are more liable to have chills. These chills are accompanied by a sudden rise of temperature. If confined to the gall bladder there is very little temperature. If the pressure is made over the ninth rib you will find tenderness and a general tenderness also of the tenth dorsal vertebrae, to the right. I think 90 per cent of the surgeons claim that jaundice is absent. Sometimes you have intermittent jaundice. I think the greatest point is in making the diagnosis.

Dr. Stough:—I have selected this subject, not because of the question of operation being the necessary form of treatment, but simply on the question of diagnosis. I remember about ten years ago an old lady with a deep jaundice of four years' standing came to me. She had lived in several

places, and had always been treated for malarial fever. She had been having chills and fever for over five years. I made a diagnosis of "gall-stones complicated with abscess of the liver." I gave a grave prognosis. She requested me to perform an autopsy, and this I had an opportunity to do a few months later. There was nearly two gallons of free pus in the abdominal cavity. Her liver was full of abscesses, and one large stone filled the shrunken gall bladder. This case, doubtless, could have been relieved by an early diagnosis and operation. I have seen many surgeons operate for disease of the gall-bladder and not find what they expected. I have had a limited experience. In one of the most typical cases, and so diagnosed by several surgeons, had a normal gall-bladder. Another, who had only had mild digestive disturbances and a few mild attacks of abdominal colic, while suffering from an attack of la grippe, began having severe pains in his stomach. These pains persisted without abatement for over a week. An operation revealed a gall-bladder filled with stones.

A PLEA FOR MORE RATIONAL INTERVENTION IN OBSTETRIC COMPLICATIONS.

Dr. W. A. Fowler, Oklahoma City, Oklahoma.

One out of every two hundred women who become pregnant dies before the completion of the puerperium. Schultz says that one-fifth of all babies are still-born and that one and a half per cent more die during the puerperium. This makes a combined mortality of 7 per cent. De Lee says that four-fifths of the mortality in obstetrics is preventable. We frequently see the complicated obstetrical case mutilated and infected beyond hope by clumsy and careless efforts at a delivery that is impossible either on account of faulty position or presentation, disproportion between the size of the foetus and the birth canal, or the condition of the mother herself. There is evidence of a failure to look for or to recognize the condition that is present that makes the attempted delivery impossible. It is also a frequent observation that for the same class of cases different methods of procedure are used in different localities. For instance, for the same class of cases, in the practice of one man or in one community, we find version used as the operation of choice in nearly every case; in another it is high forceps; in another pubiotomy, Caesarean section or craniotomy. Hoping that their discussion before this Society may lead to a more rational selection of method, I have chosen to discuss some of the methods of intervention very briefly rather than to consider any particular method in detail.

If our interference is to be rational, we must make a careful diagnosis of the condition with which we have to deal and make a careful selection of method in dealing with that condition which will offer the greatest hope of safety to our patients. Our diagnosis and selection must be not only careful but sufficiently early, if we hope to eliminate the mutilation with the morbidity and mortality which we can eliminate. Besides the routine urinalysis and the estimation of the blood pressure, which I shall not discuss here, the antepartum examination proper should be made four to six weeks before the date of the expected confinement.

Very briefly, the object of this examination is that we may, if possible, correct any abnormality of position if present and that we may determine and prepare for beforehand the possibility of dystocia due to disproportion between the foetal parts and the birth canal. The abdominal examination is, of course, most important in detecting malposition of the foetus, while the history in multiparae and examination of the pelvis in primiparae is of such importance that we owe it to every patient. If she is too timid or too ignorant to submit to this examination, we should ascertain as much as possible at the first examination during labor. The subject of pelvimetry in its proper sense is a big subject. But every practitioner should remember that regardless of his location and equipment he can determine with his hand the most important things about a pelvis, namely, the general contour, inside and outside, the diagonal and true conjugates, and the width of the pelvic outlet. Having determined in this way all we are able to determine, we are in a better position to give our patient the degree of efficiency in service which the seriousness of the case demands.

Prophylactic and Minor Interference.

Abnormality of presentation or position can frequently be corrected, especially if discovered early, either manually or by use of proper posture. King, of Washington, emphasizes the importance of posture in this respect. For instance, in transverse positions and in shoulder or brow presentations, the unsymmetrical kneeling posture will often correct the abnormality. On the side corresponding to the breech of the child, the foot is placed forward, resting flat upon the ground. On the side corresponding to the head of the child, the foot is placed farther back, the toes only resting upon the ground. When the woman bends forward the thigh of the forward foot will come forcibly against the back of the child and lift the breech end up toward the median line, while the thigh of the posterior foot pressing against the head almost horizontally from without inward and slightly upward levers it off of the iliac fossa into the brim of the pelvis, producing a vertex presentation. It is necessary that the woman maintain this posture long enough to have several pains. If for any reason the squatting or kneeling posture cannot be used, the same results can often be obtained by pressure of the thighs in the manner indicated, with the patient in the lithotomy position. The mortality in cases of abnormal positions surely urges us to use every known method that may lessen this mortality. Markoe, in a brief but comprehensive review of sixty thousand labors in the New York Lying-In Hospital, furnishes us some valuable statistics along this line. The following table taken from his figures shows the urgent necessity of converting these cases into vertex presentation if it is at all possible:

Presentation	Number of Cases	Percent of Mortality		
		Maternal	Foetal	Total
Vertex.....	48843	.55	5.61	6.16
Breech.....	2021	1.43	33.89	35.32
Shoulder.....	470	2.98	43.19	46.17
Brow.....	51	1.96	39.21	41.17

Cases of moderately contracted pelvis demand the greatest exercise of judgment on our part. These are the cases with a true conjugate of 8 to $9\frac{1}{2}$ C. M. (3.15 in. to 3.74 in.) in justo-minor pelvis, $\frac{1}{2}$ C. M. less in flat pelvis.

The question of determining the treatment in these cases is more than merely a question of pelvic measurements. When a careful examination of the pelvis and foetus convinces you that the size and hardness of the head as compared with the size of the pelvis is such that delivery cannot be accomplished by the natural forces; when the presentation and position are bad; when the strength of the patient is such that a very difficult labor cannot be borne; when the history of previous labors is bad, and especially if we are reasonably sure that the patient is not infected, Caesarean section should be selected as the safest method of delivery. But when these conditions are favorable, spontaneous labor may be anticipated and an attitude of "careful expectancy" assumed. It is my custom to give these patients the benefit of the doubt as to the value of Prochownick's diet, limiting as far as possible liquids, sugars and starches and confining the diet almost entirely to green vegetables, toast, butter, cheese, eggs and meat in small quantities, in the hope of restricting the size and ossification of the child. We should make vaginal examinations as seldom as consistent and every examination should be made with as scrupulous care as to the asepsis as if we knew it would require operative treatment. (This would be a good rule to follow in all cases.)

We are fortunate if we err only in judgment in these cases. In spite of the most painstaking care there will be times when we will err in judgment, and in these cases in which we have anticipated spontaneous labor we will find it to be impossible. There are then five operations to be considered—high forceps; version and extraction; hebosteotomy; Caesarean section, and craniotomy. The general practitioner should remember that all of these operations are major surgical procedures with a mortality quite as high and quite as dependent upon the skill and experience of the operator as any of the major abdominal operations. There are crises when immediate action on his part is necessary, as, for instance, in version in the severe hemorrhage of placenta previa, but aside from these crises he should no more think of doing these operations than he would think of doing a gastroenterostomy, a cholecystotomy, a hysterectomy, or the removal of an ovarian cyst.

High Forceps and Version.

In Markoe's report the mortality for version given is: maternal, 7.78 per cent; foetal, 41.32 per cent; for high forceps operation, maternal, 5.88 per cent; foetal, 26.12 per cent. In two hundred and sixty-nine cases of contracted pelvis in a series of 30,000 labors, Taylor reports an infant mortality of 25 per cent in cases in which the high forceps operation was done and of 46.6 per cent in cases in which version was used. When we consider the high mortality of these operations in connection with the fact that men who would tremble at the suggestion of doing an abdominal operation often do these operations with such impunity, we are re-

mind of the old adage, "Fools rush in where angels fear to tread." This is not intended as a criticism for the general practitioner who has the courage to treat a crisis with whatever method offers the greatest hope of safety at the time, but it is a caution against lack of preparation and forethought. Aside from denying our patient the best opportunity for recovery, we ourselves can ill afford in our practice the high mortality of these cases without, so far as we are able, giving them the advantage of the highest operative skill available.

Version is necessary in cases of faulty position or presentation rendering natural labor impossible when these cannot be corrected, such as brow and shoulder presentations, transverse positions, etc., and in some cases of placenta previa. When it is necessary it should be done while the head is freely movable and before the lower segment is thinned out to avoid the danger of rupture of the uterus. Version and high forceps are not competing operations. If forceps can be used version is contraindicated. Chloroform should be used during the version. One should be prepared to do a craniotomy on the aftercoming head.

The following suggestions are taken from the summary in an excellent paper by Harrah on the use of high forceps:

"Before applying forceps to a floating head, be assured that the head can be made to engage in the brim of the pelvis with suprapubic pressure properly directed.

"If, in a contracted pelvis, the head will not thus catch or bite in the brim, and if there is distinct overlapping, it is almost certain that it cannot be safely delivered with forceps except with the aid of pubiotomy.

"Situations do arise in which it is justifiable to apply forceps to the head above the brim. 1. In normal pelvis: in delayed dry labor when interference becomes urgent on account of the condition of the mother or child. 2. In deformed pelvis of medium degree: when it is possible with one or two moderate pulls to draw the largest diameters of the head through the pelvic inlet."

Hebosteotomy.

It was my privilege to be present at the only hebosteotomy recorded in the Lying-In series of cases. I shall give the particulars as I remember them at this time. The patient was a primipara who was brought to the hospital after having been in labor for about three days. Repeated examinations and attempts at delivery by forceps had been made. The only apparent results of all these were an exhausted patient, infection, with a foul vaginal discharge, and a badly lacerated perinaeum due to the forceps' slipping off of the head. The true conjugate was estimated at about 7 3-4 c. m. (3.05 in.). The operator, Dr. Lobenstein, applied forceps and made moderate traction at intervals until the foetal heart began to show signs of failing. It was then a question of Caesarean section, craniotomy, or Hebosteotomy. The presence of the infection made Caesarean section appear a dangerous procedure. We all hesitate to do a craniotomy on a living child and persisting in the use of forceps

until the foetal heart ceased is poor "sop" for the conscience. So the hebstectomy was determined upon. The dangers are: First—infection. Scrupulous care in sterilizing the field of operation was observed; sterile gauze was put in the vagina to keep the fingers and instruments from coming in contact with the septic vaginal discharge; gloves were changed, etc. Second—hemorrhage and injury to the bladder. The ligature carrier with the silk worm gut for the Gigli saw was kept snug against the pubic bone in passing around it. Third—serious injury to the sacro-iliac articulation; an assistant on each side of the pelvis prevented separation of the fragments by a space of more than five or six c. m. (2 1-4 in.) Fourth—failure of union. The fragments were pressed into perfect apposition and held firmly with adhesive plaster. The knees and feet of the patient were kept together. Both patients had a splendid recovery. Sepsis is considered by many authorities as a contraindication for the operation. Delivery is usually accomplished by forceps, care being taken to draw the head well backward to prevent its coming in contact with the sharp edges of the divided bone. While the field for this operation is narrow, there is a class of cases where it is of value.

Caesarean Section.

This operation should be used in all cases in which the judgment of the physician leads him to believe that spontaneous labor is impossible. In doubtful cases the test of actual labor should be waited for, the patient being prepared for operation when this fails. In spite of the vast amount of literature on this subject during the past few years, it is far too seldom done at present. Many operators consider a true conjugate of 7.6 c. m. (3 in.) an indication for Caesarean section. The mortality in uncomplicated cases is very low. E. P. Davis reports seventy-two uncomplicated cases of his own in which every child lived and only one mother died, the cause being sepsis. He also reports twenty complicated cases with the death of eight mothers. While this is exceptionally low, other authors also report a low death rate in these cases. In the operation usually chosen the incision is made below the umbilicus and the uterus delivered from the abdomen. At the New York Lying-In Hospital an incision just long enough for the delivery of the child is made entirely above the umbilicus. The uterus is held in place by an assistant. A long gauze pad is packed between the uterus and the abdominal wall. The rest of the operation is the same in all cases—incision of the uterus, separation of the membranes from the uterine wall, rupture of the membranes, delivery by breech extraction, removal of the placenta, sponging out the uterine cavity, and closure of the uterine and abdominal wounds. In infected cases the Porro operation is recommended. The uterus is delivered from the abdomen and separated from the abdominal wound by rubber tissue. The child is then removed in the usual manner. The ovarian and round ligament blood vessels are tied and the broad ligaments are cut as far as ligated. Strong clamps are put on the cervix and left in place. The tubes, ovaries and uterus are then removed. The abdominal wound is closed down to the cervix, the peritoneum is sutured

to the cervix below the clamps, the wound dressed antiseptically until sloughing and healing by granulation take place.

The high incision, in my opinion, is to be preferred in selected cases as it has all the advantages of other operations with the added advantage that it escapes the subsequent formation of adhesions and leaves less likelihood of hernia. The so-called classic operation is to be preferred in "suspected cases" and in the absence of a competent assistant. The Porro operation is to be chosen in infected cases.

Eclampsia.

If eclampsia cannot be controlled by hypnotics, eliminatives, venesection and quiet, pregnancy should be promptly terminated in the manner that offers the least shock to the patient, and the greatest safety to mother and child. If the cervix is long and rigid or if the pelvis is small or the head large, Caesarean section affords a safer method to the patient than delivery through the vagina.

Craniotomy.

Craniotomy on a living child of normal proportions is a confession of an awful blunder somewhere. The doctor in these cases is judge, jury and executioner of a prisoner denied the liberty of speaking one word in his own behalf or of even lifting a hand in supplication. However, if in our judgment this is indicated we should either do it or have called in a more competent man. In badly infected cases in which we are urged to preserve the uterus or, if the mother refuses to endanger her own life for the sake of the child, this may be necessary. If the temperature and pulse are high and there is tenderness and other indications of infection of the whole body of the uterus, the Porro operation offers greater safety even to the mother. If craniotomy is done at all, it should be done with the clear consciousness that we have used all the knowledge and skill we possess and have left no stone unturned in our effort to prevent it. We must, of course, be sure we can deliver the child after the craniotomy.

In cases of placenta previa diagnosed early, Caesarean section, if circumstances will permit its performance, certainly affords a safer method of delivery than delivering through the vagina with the necessary version and the high mortality in these cases.

DISCUSSION.

Dr. Kuhn:—I have assisted with a large number of Caesarean section operations and never saw but one mother and child die. The patient had had fourteen convulsions before being brought to the hospital, and of course nothing was left to do but Caesarean section, with the hopes of saving the mother's life, for the child was probably dead anyway. The Caesarean section is not really a difficult operation if you have the facilities at hand. I was in the Caesarean section at one time in which we did the operation completely in twenty minutes. I believe mother and child can be saved by Caesarean section better than in any other way.

Dr. Von Wedel, Oklahoma City:—Many times the head is caught in the pelvic outlet and with a deep incision you will lay open the whole vagina. You cannot hurt anything and you have a clean, open wound and no infection. Now, regarding the Caesarean section, I think there is one mistake that is made in the Caesarean section, and that is speed. There is no necessity of it. There is no reason why we should do it in seven minutes. I think it is much better if time is taken and the uterus delivered, and the only necessity for speed in Caesarean section is going through the uterus in delivering the child.

Dr. Kelso:—But with reference to version. Whenever we run up against a case in which we have to turn the foetus, that is the time that the perspiration starts upon most of us. I have been very fortunate from the fact that I have had comparatively few of those cases to deal with, but there is another form that we have is decapitation. I had a little experience along that line. Let me report a case of decapitation some twenty years ago. I was holding a consultation with a very noted practitioner, who had several years' experience more than I had. I went up there in the country a great many miles from any other practitioner, and the history of the case was that it was about the eighth confinement. After a great deal of trouble she was delivered of a dead child, but previous to that there was no trouble. She was a Swiss woman. The physician informed me when he left that there was a presentation. He said he thought it was a hand, but he had tried to push it back, and the more he pushed the more it pushed down. When I arrived there were two feet and two hands and the body was just about one-half out. So it was a very large child and about the time I made the examination she had a severe pain and the child was presented. It was a very large child and had been dead probably twelve or fifteen hours. We hardly knew what to do. We finally decided to do a decapitation of the child. We managed that comparatively easy, but our trouble was more after decapitation than it was previously, but by the use of forceps we finally crushed the head. Don't worry if you fail the first time; don't get discouraged, but you can get hold of it after a while and can crush the head with forceps sufficiently. We did not have any bones sticking out to amount to anything. The part of that child that we weighed, weighed fourteen pounds. We found that the head never was in the pelvis.

Dr. Fowler, Oklahoma City:—I would like to say as regards Dr. Von Wedel's statement as to episiotomy, that one thing I hardly ever do is to incise the perineum. I think it should not be done unless absolutely necessary. But in cases of version in which the resistance promised by the pelvis floor may cause extension, it may save the life of the baby and should be done. I am very interested in the doctor's report of decapitation. I know how hard it is to do, but in a case like that it is absolutely unavoidable. Most cases of decapitation should not be done except in badly neglected cases of shoulder, face or transverse presentation. When we make our first examination we should examine the pelvis very carefully and ascertain the position of the child.

SUB-MUCOUS RESECTION OF THE NASAL SEPTUM.

W. Albert Cook, M. D., Tulsa, Okla.

I know of no operation which has increased more in popularity in the last few years than the resection of a portion of the cartilaginous or bony portions of the septum. In this brief paper I will not enter into the discussion of the etiology of the deformities of the septum more than to say that most of them may be classified under traumatism or dependent upon some other congenital or pathological conditions. In my early experiences I considered traumatisms responsible for the majority of cases, but I now believe that the traumatic cases are in the minority, as the majority of cases that have come under my observation give no traumatic history. The deviations may involve all or a part of the triangular cartilage, or may be confined to the perpendicular plate of the ethmoid, or it may include both. The majority are cartilaginous and may be deviated either way from the median line, or it may be a compound curvature obstructing the anterior portion of the nasal cavity on one side, or it may be limited to a spur or spurs on almost any portion of the septum, but more often about the center or nearer the lower margin. The complications usually met with in deviations are numerous. The principal ones, which are acute rhinitis; chronic rhinitis, usually hypertrophic if the deviation has existed for some time; acute sinusitis, catarrhal or suppurative; chronic sinusitis, polypoid degeneration, and atrophic rhinitis, the majority of which interfere with the normal circulation of air through the nares and the eustachian tube.

Many operations have been advocated and some are more adapted to particular cases than the sub-mucous resection, but the resection is applicable to more cases than all other operations combined. Most osseous deviations are associated with cartilaginous ones, but the cartilaginous more often occur independently. The advantages of the sub-mucous operation are that all deformities of the septum, whether cartilaginous or osseous, may be corrected at one sitting and the dressings do not have to be continued for so long a time and obviates the use of nasal splints which cause more or less discomfort to the patient.

The anesthesia used is usually cocaine crystals applied to the septum membrane on either side after swabbing with adrenalin or injecting directly into the membrane a solution of cocaine or some of the different substitutes. My usual method is to make an application to the membrane with a swab of a twenty per cent solution of cocaine, to which a few drops of adrenalin chloride had been added, and after waiting two minutes to inject a one-half of one per cent solution of novocain sub-mucously. The first injection is made near the superior margin of the septum, the second near the floor of the nares, and the third about the middle of the anterior portion. These to be repeated on the opposite side, and after waiting eight to ten minutes the anaesthesia is sufficient to start the operation.

While I have never had any serious results from the use of cocaine, I feel much more secure with novocain and the anaesthesia produced is

equally efficient. The incision should be made on the convex side of the deflection, as it gives us more room going around sharp angles and spurs. Different operators make different incisions in commencing the operation, but the one I usually use is a modification of the Hajek and Killian. Beginning at the upper margin of the cartilage, about twenty millimeters back of the anterior margin, coming downward and forward to about ten millimeters of the anterior margin and continuing this curved incision downward and backward, making an oval flap which gives a large opening and is easily closed when the operation is completed. A Freer sharp elevator allows you to rapidly elevate the periosteum, but the blunt elevator is preferable after the initial flap is elevated. The blunt elevator may be easily advanced under the periosteum backward by keeping it parallel with the superior surface of the nose, as the septum is usually free from deformities in this vicinity. It is usually an easy matter to elevate the handle of the elevator, thereby forcing the instrument in a downward direction without any danger of perforations except in excessive deviations or angles, in which case they must be slowly and carefully dissected. The elevation is to extend as far back as you intend to remove the septum.

After completing the elevation on the side of the incision, the next step is to make your incision through the cartilage, which is the step in the operation where perforations may easily occur. Different operators use different methods, such as curreting the cartilage until you are through to the perichondrium of the opposite side, while some operators use a wheel knife with a shoulder to prevent the blade from cutting farther than the ordinary thickness of the cartilage; but an ordinary scalpel will do equally as well as these other methods, as by holding the index finger of your other hand in the opposite nares you are able to detect when the incision is through the cartilage before you would be able to see it, which you do not usually do until the point appears through the membrane. After having made a successful incision of the cartilage the same shape as the mucous flap, you pass your blunt elevator through to the opposite side and proceed to elevate the periosteum in the same manner as on the preceding side. After both sides have been elevated as far back as the deformities exist, you next introduce the Killian speculum under the periosteum, one blade on either side of the cartilage. By the use of a Ballenger swivel knife you start an incision near the superior margin of the deflection, then pushing it back as far as the osseous plate or the occasion demands, then turning it downward until close to the base and then drawing it anteriorly when you can remove the greater portion of the cartilage in one piece. This, of course, cannot be done in all cases, but where the deflection is only curved it is much more rapid than by removing the cartilage in sections with the punch, which we are compelled to do in irregular deviations. In removing the cartilage the incision should not be any higher than necessary to correct the deformity, as cases of saddle nose have been reported from loss of too much support to the arch of the nose. The next step is the removal of

the osseous plate with the punch, several models of which are adapted to different conditions. When the dissection has continued as far back as required, the base of the cartilage can usually be removed in one piece by making an incision through it anteriorly down to the osseous base and inserting an elevator, thus pushing it posteriorly until you reach the perpendicular plate.

After you have removed sufficient of the septum to correct the deformity, the wound should be carefully inspected and all fragments removed. After this you remove your Killian speculum and allow the periosteum on either side to come in contact with each other and then carefully inspect both nares to see if you have obtained the desired results. If there are no deflections remaining and the nares are practically of the same size, you are ready to dress your wound. I prefer closing the flap such as I use with one stitch at the anterior end, which prevents the wound from being opened if the dressings are molested. The side on which the original incision was made should be packed first with strips of iodoform gauze through the Killian speculum, which should be carefully removed after the gauze is in place so as not to interfere with the flap. Then the other side should be dressed in the same manner. These dressings should not be disturbed before forty-eight hours and do not cause the patient much inconvenience other than the necessity of breathing through the mouth, and very little pain and practically no hemorrhage follows this operation.

DISCUSSION.

Dr. Orelup:—This operation on the septum has been a good deal of a hobby for a couple of years. I think there are many cases operated on that should not have been, because the result has not been as satisfactory as we wished for at the start. Nearly always we get a condition of the septum that is almost as bad as before the operation. Of course, it requires a good deal of boldness to go into some of those cases. In a case I operated on in Chicago last year the patient sat in the chair and bled about three hours, and I suppose lost a quart of blood. It was from ten to after one o'clock. The operation is not as new a thing as one might think. I cannot say that I have had as satisfactory results as I wished to have. I give them relief from night breathing, but I notice in the day time they have some trouble.

Dr. McHenry:—There is one point in the doctor's paper I want to say something about. Until the last few years I left the packing in forty-eight hours, but during the last years I have not been leaving it in more than twenty-four hours. The last time I was East I found men not leaving it in more than twelve hours and getting good results. My experience does not coincide with Dr. Orelup's. I think the operation on the sub-mucous septum is the greatest I have found. I have operated and never had any scabbing of the nose. I think the operation carefully done is one of the few operations that is highly satisfactory, and I never had a case but that I was highly satisfied with it. I never had one but what I got excellent results.

The Chairman:—In the case of those cavities where the turbinate has become hypertrophied on the concave side of the septum, do you do anything with the turbinate?

Dr. Cook:—I would take a piece of that off. Take out a "V" shaped piece from the turbinate. The point of the "V" goes to the periosteum. Of course, many of these cases will shrink up and stay shrunk. If they do not, I do what is necessary.

The Chairman:—If there is no further discussion, Dr. Cook will close the discussion.

Dr. Cook:—I do not have much to say in closing the discussion. I do not think that much could be said. I have had experience like Dr. Orelup has had, but the experience he gave I think might probably be due to covered spurs or fangs that existed from the operation.

THE TREATMENT OF CORNEAL ULCERS WITH ESPECIAL REFERENCE TO THE USE OF METHYLENE BLUE.

Dr. Meyer Wiener, St. Louis, Mo.

In order to effectively discuss the treatment of corneal ulcer, one must consider the character, location and stage, and also of prime importance, the prophylactic means in various conditions which produce ulcer of the cornea.

For example, in gonorrhoeal ophthalmia, how careful we must be to avoid injuring the corneal epithelium in cleansing the eyes, knowing that the epithelium acts as a most effective barrier to the inroads of pathologic bacteria.

Also care must be taken in making applications of silver nitrate to the conjunctiva in gonorrhoeal ophthalmia, in order not to allow the solution to come in contact with the cornea.

Proper aseptic precautions should be taken in removing foreign bodies from the cornea, and even antiseptic as well, for often we see a patient with a foreign body, where unsuccessful attempts at removal have been made by shop foremen with dirty picks, pocket knives, and other similar means. Here infection can be prevented by a little care.

In marked exophthalmus, paralysis of the facial, ectropion and deformities of the lids caused by burns; after removal of the gasserian ganglion where the lids are separated and many other conditions, such as long protracted unconsciousness of brain tumor, typhoid and other sicknesses where the lids are not in apposition, the cornea is apt to become dry, with accumulation of dust and dry secretion, predisposing to infection and loss of substance.

By frequent douching with some mild collyria such as boracic solution, gentle friction of the lid at definite intervals by the nurse or attendant and the installation of oleum ricini two or three times daily, much damage can be prevented, which we would find great difficulty in removing after it had once taken hold.

In herpes of the lids and many skin affections of the lids and about the face, corneal complications can often be avoided or checked in their incipency by prompt measures which will thwart the incursion of pathogenic bacteria into the corneal tissue.

In certain diseases of the nervous system where there is anesthesia of the cornea, foreign bodies may become imbedded without the patient being aware of the fact. Here careful instructions as to observation and flushing out with boracic solution often save much trouble. In epidemic spinal meningitis with lagophthalmos or any similar condition, the same holds good.

In the treatment of an existing corneal ulcer we must consider the removal of cause, if ascertainable, and the building up of the patient's physical condition, as well as the local treatment and prevention of complications.

The importance of a bacteriological examination should not be underestimated, even though the clinical picture be the most important. For example, the presence of the diplo-bacillus of Morax-Axenfeld indicates the use of zinc sulphate as a specific. Axenfeld states he has never seen a diplo-bacillus infection of the cornea he has not been able to cure by the use of zinc. Some good results have also been reported from the serum treatment in pneumococcus and staphylococcus infections.

In certain forms of dendritic ulcer and malaria, an examination of the blood should be made for the plasmodium malariae, and even where this is not found, quinine given internally as well as a 1½% solution of the bisulphate instilled in the eye will often benefit cases resisting other means of treatment.

In keratomalacia, local treatment is absolutely of no avail without building up the general condition.

Phlyctenular ulcers are almost certain to resist almost any form of local treatment without tonic treatment and strict diet enforcements. These patients must avoid all indigestible foods, such as foods fried in grease, coarse grains, candy, soda water, pickles, tea, coffee, pastry and the like. Permitted are milk, bread and butter, strained vegetables, scraped beef, custards, tapioca, eggs boiled or poached, and similar foods. This is of great importance and as a general rule sufficient stress is not laid upon this important fact.

A strict inquiry into the condition of the alimentary tract is necessary. In children calomel is useful as a laxative. Phosphate of soda and other salines are often necessary in adults.

Where an infection comes from regurgitation from the lachrymal sac, the sac must receive prompt attention either by antiseptic washing, Ziegler probing or extirpation.

The object of the local treatment should be an endeavor to diminish inflammatory irritation, check the progress of the ulcer and hasten repair. If we have an ulcer due to trachoma or its complications, such as

trichiasis or entropion, it is understood that these must be given first consideration. If there be ciliary injection with accompanying neuralgia, photophobia and lachrymation, atropine should be instilled. I do not regard atropine as in any way curative, but only to prevent complications which might be induced by a secondary hyperaemia or inflammation of the iris.

Strong antiseptics, astringents and caustics should generally be avoided during the acute progressive stage.

I believe, as a rule, the bandage and dark room are too generally advocated. Often light, which is antiseptic, and fresh air are of vital importance in effecting a cure. The salicylates are invaluable in helping to relieve pain.

If the ulcer be superficial, with considerable conjunctival irritation, but little or no ciliary injection, cold applications will be found to give considerable relief from photophobia and the disagreeable scratching sensation, and will reduce the injection to a great extent. A mild antiseptic solution may be used by the patient at home. I have used a 1% antin-*osin* solution to great advantage, finding it antiseptic and non-irritating. antiseptic powder is also valuable, xeroform and nosaphen finding most favor. Too much cocaine should not be employed, as it softens the epithelium and invites further spreading of the infection. If the ulcer is deep and there is secondary iritis, hot applications help reduce the congestion and assist in relieving pain.

In sloughing corneal ulcers there is considerable discharge, various methods of checking the progress have been employed with diverse results. The suppurative ulcer is exemplified in its severest type by the serpent ulcer of Saemisch, which is almost always due to the pneumococcus lanceolatus of Fraenkel. Often there is a mixed infection, as with the staphylococcus pyogenes aureus or the streptococcus pyogenes.

Dacryocystitis is present in a large percentage of these cases and must always be considered. The sac should be washed with a bland solution after emptying by pressure.

After cocainizing, the ulcer is generally cleansed and dried with cotton and the overhanging edges carefully trimmed with a delicate scissors; then gently curetted and carefully cauterized by means of acid or actual cautery.

If the ulcer spreads, as often happens, in spite of all means of treatment, and hypopyon becomes extensive, section of Saemisch must be resorted to. This we have as a last resource, as there is almost always anterior, synechia resulting, even with the most favorable outcome.

About four or five years ago, Dr. H. L. Wolfner and myself, in using a conjunctivitis tablet prepared by P. D. & Co., containing methylene blue, observed the most extraordinary good effect on purulent conjunctival and corneal conditions. The strength of the solution was gradually increased and the pure methylene blue solution used, first, in strength of 1 to 1,000, 1 to 500 and finally 1 to 100. Eventually the

pure methylene blue powder was employed. The most marvelous and happy results were obtained in sloughing corneal ulcers with and without hypopyon.

The method used at present is as follows: The eye is cocainized with one or two drops of a 4% cocaine solution. A toothpick or applicator, wrapped with cotton, is dipped into methylene blue powder and a very small amount dusted on the surface of the cornea. The lid is then quickly and gently rubbed over the cornea.

The lachrymal secretion is stained very deep blue, which should be wiped away from the lids until the tears refuse to take up more of the stain, when the ulcerated surface of the cornea will be found to be stained a deep Prussian blue, while there is very little staining of the intact cornea and conjunctiva. A light bandage is then applied and left on for 24 hours.

A great deal of pain is experienced for several minutes, or even sometimes for as long a period as half an hour, but an anesthetic effect then supervenes and the patient becomes much more comfortable.

The following day improvement is almost invariably found. The ulcer appears cleaner, less ragged in outline and with less pus; also the base of the ulcer is generally found to still retain some of the blue stain. The operation is repeated daily, until within a few days the hypopyon will be found to have been greatly diminished or entirely disappeared; the ulcer gradually taking on a healthier appearance and showing a disposition to heal.

So soon as the sloughing has disappeared and the edges are no longer undermined, the patient is relieved of the bandages, much less powder is used and the patient is given a 1% solution of methylene blue to instill at home two or three times a day. As soon as the edges are perfectly smooth and clean the ulcer is treated as any ordinary clean ulcer would be treated. Atropine is used as long as there is ciliary injection.

During the past three years all sloughing corneal ulcers coming under my observation at the clinics of the Washington University Hospital and Jewish Hospital, as well as in an extensive private practice and other hospital connections, have been treated in this manner, and in only four cases we have had to resort to Saemisch Section, owing to failure to arrest the progress of the disease. One of these I believe to have been a Mooren ulcer, as it was chronic in form and lasting several months, with negative bacterial findings. A perforation occurred with resulting staphylococci and loss of the eye.

Methylene blue has been reported in the literature recommending its use in corneal ulcer, but only, as I have been able to determine, in weak solutions of from 1 to 10,000 to 1 to 1,000 as collyria, or in subconjunctival injections, but not in strong solutions or use of the powdered form. In our hands, it has been undoubtedly the means of saving many eyes, which would otherwise have gone on to destruction.

Discussion.

Dr. C. J. Lukens, Enid: I have looked forward with considerable interest to the reading of this paper, for I know methylene blue was introduced to my notice a great many years ago, but I have never before heard of the use of methylene blue for the treatment of corneal ulcers. I remember Dr Knapp, some long time ago, using the powder on the corneal ulcer, but for some reason did not continue the use of it. I presume it had been suggested by some one to use it in that way. From the doctor's report it is certainly very interesting, however, I am not myself in favor of using cocaine for corneal ulcer. I would much prefer the use of alipatic. Cocaine, as the doctor says, deteriorates the corneal epithelium. Of course my practice has largely been such as to enable me to control the ulcers by cocainizing, but the doctor has made such a remarkable discovery in methylene blue that I shall hereafter put it into use.

Dr. C. E. Orelup, Enid: I want to say that the doctor has reintroduced my own friend, "Methylene Blue." I was located some twelve or fourteen years ago in a locality where we had many corneal ulcers to deal with. I don't know where I got the remedy, but I know at that time I used practically altogether methylene blue. It was practically as the doctor said—the people thought I was using methylene blue for eye water. I must say that I always had good success with it and had no reason to go back on it, but when the silver salts came in I gradually quit using methylene blue and started using that. I used it for five or six years and with very satisfactory results, and there was no reason why I should have gone to silver salts but that was the literature of the day. I believe that methylene blue is a good thing, and I used it in general practice, and that there is where I got to using it in corneal ulcers. I am glad the doctor reminded me of my old friend.

Dr. McHenry, Oklahoma City: I certainly enjoyed this paper very much. I never used methylene blue in corneal ulcers, and if there is anything that will give us any help in the treatment of ulcers, I am very glad to find it, for it certainly is better than the very radical treatment. The fact that the doctor speaks of the methylene blue perforating the ulcer so that he can still see it after 24 hours is certainly worth something to us. There were points he brought out, of course, that were known to us but this one point is certainly new to me. I remember eleven or twelve years ago in the Chicago Clinics we used a very weak solution of the methylene blue. It did not happen to appeal to me at that time, and I did not follow it up and use it. Certainly this class of cases in which he recommends its use is quite a discovery to any one doing eye work. Personally, I am very glad to try this in my own work, and to know the doctor's experience.

Dr. Cook, Tulsa: I am very much interested in the doctor's paper. I have a case on hand at the present time and I won't fail to take advantage of this experience when I get back. The ulcer is very

deep and as yet the treatment has been without result. I thoroughly enjoyed the paper, and as soon as I get home, if the patient is still in need of assistance, I am going to try this.

Dr. McNutt: I want to express my appreciation of the paper and say that one time several years ago I started in to use methylene blue, but like a good many other physicians used a very weak solution, and out of several cases I did not get any result. But the solution was very weak and after hearing the reading of the doctor's paper, I certainly am going to try his method and give methylene blue a fair chance. Just one point he spoke of using electrocautery. It may seem tender-hearted, but I have never had the nerve yet to use electrocautery in an ulcer, but sometimes we are a little afraid of results. My method in a great many cases for the curretment is using iodine, and I think that is the only time that cocaine should be used, and then by taking a good application I have had good results.

Dr. S. M. Jenkins, Enid: I want to ask the doctor, as he is closing the paper in his use of methylene blue on the ulcer, if he experiences the same reaction that we have following the electrocautery. I just want to say to the gentleman that if he will use electrocautery in the proper way he will wonder how he ever got along without it, for it certainly is very gratifying in my hands, with the objection of the reaction that we have following a few hours, which necessitates the hypodermic of some form of opiate to relieve the pain. You all know that if a man or woman takes a hypodermic it naturally necessitates a little inconvenience. I have never been able to use the electrocautery on anyone that did not suffer unless followed by some form of opiate. That has been my observation with reference to electrocautery. And if the doctor afterwards, in answering says he does not have this reaction, I will certainly be ready to embrace the methylene blue. If not, I will still use my old friend and standby, the electrocautery, for it has been good.

Dr. Mitchell, Lawton: I want to ask Dr. Jenkins if in thoroughly curretting these ulcers he does not get rid of a lot of the sloughing that he speaks of?

Dr. Jenkins: Yes, I get rid of it, but do not stay rid of it. It stops it for the time being.

Dr. Barnes, Enid: I have used methylene blue since I knew Drs. Wolfner and Wiener more than four years ago. I have had some good results in the use of methylene blue. I noticed some time ago where somebody had introduced the use of methylene blue for tuberculosis. I know some physicians who have treated urethritis with methylene blue with good results. And why should this not be a good germicide? I am glad to hear the doctor speak of the powder form. This powder will stain much more deeply and not make any more reaction and any more pain than a strong solution, which is the objection that we had in giving it to a patient. The patient would complain of pain caused from giving a 1% solution. By using the powder and by deep staining, which

it will do and remain there for two or three days, you will render inactive the germ that has produced the trouble.

Dr. Wiener, St. Louis: I was aware that methylene blue had been used for many things, but have found no report of using it in the powder form. I have not come in contact with any one else previous to today who had ever used it in this form. We have used methylene blue before, when I first started out. Methylene blue was used and probably the reason why a good many of us objected to methylene blue is that we have found good results in some cases and tried to use it in other cases, and thinking we had found a panacea, and we forgot those conditions in which it has done good, and only remember those in which it has not done good, and have objected to it because, as I said, it does not act as a panacea.

As to the use of the cautery, I want to say that Dr. Jenkins had better prepare himself to accept methylene blue, for he is going to abandon the cautery and almost every form of treatment for sloughing of the ulcers when he has tried methylene blue. There is absolutely no reaction in the use of methylene blue. The patient suffers a good deal of pain, but it does not last long and the following day we invariably find the ulcers looking very much cleaner and very little sloughing edges.

PELLAGRA, WITH ESPECIAL REFERENCE TO A NEW THEORY OF ITS ETIOLOGY.

Dr. J. R. Callaway, Pauls Valley, Okla.

It is not the purpose of this paper to present an exhaustive discussion of pellagra. It is intended rather as an invasion of the field of etiology, to present as simply as possible a new theory of the cause of this disease or pathological condition which has, in the past few years, attracted wide attention among medical men, bringing forth within a year two text books by American authors, besides a large number of reports and monographs.

I plead the widespread interest among medical men and the laity as well, as my excuse for stirring up the "troubled waters" of discussion on this subject.

Of the etiology of disease we are woefully ignorant. From the time when men believed disease to be due to the machinations of evil spirits or the product of the fiat of offended deity, is a long and weary way along which patient and careful investigators have unceasingly toiled until at last we are able to say that we know the specific causes of a few diseases—a very few, when we consider the whole number—and pellagra is not one of that few.

So far as I know, the etiology of a disease has never been arrived at directly; that is, without the formulation of a theory of its etiology, and sometimes, of several of them, as the history of pellagra itself testifies;

and every student of medical history will readily recall others. To be sure, these theories have often proved faulty, yet truth ultimately triumphs to the gain of suffering humanity.

I will mention one instance only. Ever since the discovery of America, yellow fever has been a veritable scourge of the tropical and sub-tropical countries of the New World. The theory of its etiology upon which medical and health authorities acted was that the disease is produced by a "virus"—whatever that may be—conveyed from person to person and from place to place by fomites. Yet the disease persisted in incidence, virulence and high mortality in spite of the efforts of individuals, communities and nations, because the theory of its etiology was wrong. But late in the nineteenth century, Dr. Carlos Finlay, of Havana, brought forward the theory that the mosquito is the responsible agent in the transmission and production of yellow fever, and the Spanish-American war brought Drs. Reed, Carroll and Lazear with opportunity and facilities to demonstrate the correctness of that theory, Dr. Lazear falling a martyr to the cause of science. The result of this work you all know. Who can doubt that yellow fever will soon be of historic interest only?

In some diseases, as leprosy, for instance, we have learned the specific micro-organism which causes it without being able to discover the carrier or host by which it is conveyed. In some others, as bubonic plague, we know both the specific cause and the carrier by which it is distributed and our knowledge of these has, in this instance, thus far prevented the blighting of our fair land by this dread disease. In the case of pellagra we know neither the specific cause nor the means by which it is distributed and hence are as powerless to prevent its spread as we are to reduce its frightful mortality.

But again, a pathological condition and its symptoms have been clearly recognized and dignified with the name of a disease when in reality it is only a terminal stage of a well known disease due to a specific cause. I believe that at the present time it is a well nigh universal opinion among medical men that tabes bears this relationship to syphilis and that if we are to prevent tabes, or to successfully treat it, we must deal directly with syphilis, both as to prophylaxis and cure.

This leads me to a statement of my theory: That pellagra is not a disease, *per se*; that its lesions of the nervous system, skin and mucous membranes, with their resulting symptoms, are only sequelae to a specific protozoan infection—malaria; that pellagra bears a relation to malaria similar to that which tabes bears to syphilis. In other words, pellagra is only a terminal manifestation of malarial infection.

It is well known that when the plasmodium of malaria is once introduced into the human blood it is capable of continuing its existence for an indefinite length of time, by means of asexual reproduction. I have said "an indefinite length of time," my own observations leading me to believe it may continue for several years at least, and that if not destroyed by the protective forces of the human organism or appropriate

treatment it may continue until the death of the human host; or at least, until its activities have produced various cachexias with which every practitioner is more or less acquainted, and finally, pellagra as a terminal stage.

The presence of the plasmodium in the human blood ordinarily produces certain acute symptoms known as the malarial diseases, malarial fever, or simply malaria. I have said "ordinarily," for some persons are either naturally tolerant of the presence of the micro-organism, or they acquire such tolerance, so that the ordinary acute symptoms of malarial intoxication are either so modified as not to be recognized or they are lacking altogether.

Nevertheless the toxins produced by the metabolism of the infecting agent continue to be liberated in the blood of the individual and these toxins having a selective action on the cerebro-spinal system, eventually bring about certain degenerative changes akin to sclerosis, and these in due course, trophic disturbances in the mucous membranes and skin which complete the syndrome to which the name pellagra is applied.

Pellagra is not a new disease, though it is only a few years since it was first recognized in the United States. Since I have been able to diagnose it, I am also able to go back in memory's pages and find a number of cases which were incorrectly diagnosed or not diagnosed at all, which I would today instantly recognize as pellagra; and some of these more than twenty years ago. If I have been "slow of understanding," I apprehend that other practitioners may have been likewise, and that if we will view the past with the same enlightened eyes with which we view the present we will find the terms "chronic dysentery," "chronic diarrhoea," "mercurial stomatitis," "gastritis," "enteritis," "melancholia" and "dementia" covering a multitude of diagnostic sins. Not that all of these were pellagra, but there were many pellagrous cases among them. Two persons were examined before the Insanity Commission of Garvin County. They were found to be of unsound mind and placed in the sanitarium at Norman. The medical member of the Commission gave his opinion that they were pellagrins, though they did not yet show any lesions of the skin and mucous membranes. My information is that they have since developed the entire symptom complex of pellagra.

In the cases just referred to where I made a diagnosis, it was "chronic malaria," and it is my firm conviction at this time that my diagnosis was correct, for I believe that malarial infection is the necessary antecedent of pellagra.

A considerable time elapses—several years in most instances—between the malarial infection and the pellagrous symptoms. During this period the toxins developed by the original infection bring about the degenerative changes before mentioned, and these following the law of sclerosis in general, proceed to bring about the whole symptomatology with which we are familiar.

I was led to this conclusion from the observation that my pellagrous patients had, without exception, previously suffered from malaria, several have been under my care at different times for many years. Moreover, they were persons who either could not or would not take proper antimalarial treatment. Following up this idea, I found in the case history of many reported cases of pellagra mention of the fact that the patient had at one time lived in a malarious district.

Since maps have been published showing the distribution of pellagra in the United States, I have observed that the areas coincide very nearly with the areas of malarial incidence; that where pellagra is endemic, malaria is also endemic; that where sporadic cases of the one appear, we also note sporadic cases of the other. To my mind, the occurrence of sporadic cases of these diseases outside the areas where they are endemic, follows quite naturally the constant shifting of our population.

In numerous discussions of this theory with my fellow practitioners, one objection has been raised, which I shall make the basis of my concluding paragraph. Stated as a question, it is this: "If pellagra is a terminal manifestation of malaria, why are there a larger number of pellagrins in Illinois than in Alabama?" Or in a more general way: "Why are there more pellagrins in those districts where the milder forms of malaria prevail, than in those where the severer malarial infections are found?" The answer is, that the milder infection is often imperfectly treated, or not treated at all, while in the severer infection the patient dies of the acute disease, or if he recovers, has by that time been effectually treated.

My conclusion is, that just as the milder cases of syphilis, not receiving proper treatment, on that very account, are quite likely to be followed by the syndrome of tabes, so the milder malarial infections, receiving insufficient treatment on account of their mildness, are more likely to furnish a crop of pellagrins than are infections of the severer type.

Discussion.

Dr. Cotton: I tried to practice medicine for fifteen years in a strictly malarial district. The doctor certainly speaks correctly when he says that he does not believe pellagra is a disease *per se*. I tried to practice medicine twenty-five years and fifteen of it in Southeastern Missouri, in almost the swamps. In our cases there we would have pneumonia and find our cases complicated with malarial infection. If we had a case of injury we would have a malarial infection to complicate our troubles. Some of the more serious cases that had to be treated would be brought in, but the milder cases generally got quinine. I remember in some cases a big dose of quinine was a regular thing before meals in some families, and castor oil and the big blue pills. The malaria in those cases had continued in that section of the country and I cannot help but believe it had something to do with it. The doctor's paper is along lines of special interest to we doctors that have to practice in strictly malarial districts.

Dr. Fisher: I want to say that if there is one hobby I have in the practice of medicine it is malaria. My two years of experience in the tropical regions made me interested in the subject. I enjoyed the paper of Dr. Callaway and I believe it will open up a field and we will more than likely find the theory correct. We found many cases of this disease in Panama, but I believe the reason is malaria.

Dr. Day, Oklahoma City: I had the pleasure of talking with Doctor Callaway two years ago on this same subject. I know how radical the doctor was and I know his views pretty well and have gone over the whole subject with him before. We had up a discussion a year ago along the same lines. The question of the etiology of pellagra is an interesting feature and doubtless will be for years to come. If you will follow the investigators that have spent considerable time and money in the United States, Europe, Asia and Africa, you will find that the solution of the problem of the etiology of pellagra is no easy thing.

There are some things in connection with the doctor's paper that are of marked interest. If you will follow the history of the pellagra districts you will find they follow streams to a great extent. It was true in Italy and in Egypt and in the eastern portions of the United States where most of the investigation has occurred.

The theory of pellagra as a disease *per se* is one that is questioned. I agree with the statement that pellagra is not a disease *per se*; it is not a disease in itself. It is a symptomatic indication of something else. I am firm in my belief of that after seeing the cases I have seen and making the observations I have been able to make and reading the reports of the investigators and so on.

A study of pellagra can be had here in this state in the institution at Norman. There is where you can find cases all the time, and it has been my good luck to be on the staff of the institution for some time. where we used the opportunity to study these cases. Comparing these cases with the writer's, we find this fact true: In practically every one they were preceded by an exhaustive condition or some exhaustive disease and the low vitality of the individual was very much reduced. In other words, they were at a very low state of vitality. Some of these cases have followed puerperal fever, some have followed typhoid fever and some malarial fever—some one thing and some another.

Day before yesterday I had the pleasure of seeing some cases over on the east side of the state. I have had three cases of pellagra at McAlester. One in North McAlester, a lady, the wife of a prominent merchant; they are living in the Southern part of the city, down towards the stream where there is stagnant water. One of the others was from over near Haileyville. She came in as a county patient because she was reduced to a low state of health by malaria. I do not know anything about the blood findings in either of the cases. Another was a county patient in the last stages of pellagra. A year ago I was over there to see a case and it proved to be a case of pellagra; an individual that is living within thirty or forty feet of a stream of water. You find

the lower ground of the streams are productive of pellagra development. When it comes to solving the problem of the etiology as we do and treating it as a disease *per se* we will be at sea for a long time. While I agree with Dr. Callaway, I only have to agree with him in part: That it is the result of exhaustive conditions and not a disease *per se*.

Dr. Williams, Stroud: I have had the pleasure of seeing a great many cases of pellagra in Kentucky in the mountain district, and I find a great many cases do not follow the streams, but there seems to be there most unsanitary conditions we can find. As to malaria, we could not have much malaria there, but it seemed to be the unsanitary conditions. Most of the people there that had pellagra lived in unsanitary conditions. Their food was not sanitary, and a great deal of it was canned. Yet, I believe pellagra is a symptom and not a disease *per se*. I doubt that the malaria is the cause, for in many cases we had no malaria at all and no plasmodium in the blood.

Dr. J. M. Byrum, Shawnee: I have treated three or four cases of pellagra and on other occasions I have been forced to the extremity of diagnosing some of the cases malaria. Those cases of pellagra which I have treated had thorough examinations made and we have not been able to find plasmodium. I agree partially with Dr. Day that it is a condition, but I do not think nor see the necessity of following the streams. I believe it is rather fanciful, though the history has shown that to be true, more or less, I believe. I believe it might be a condition brought on by chronic syphilis or a condition of continued unbalanced diet, or other things. One case I remember in particular: The feces were negative, and there was nothing characteristic in the urine. The white blood count was rather high. This case gave a history that would make you think perhaps there has been syphilis, without a definite history of syphilis. With careful treatment the symptoms disappeared and I have been watching this spring very closely expecting a return. The patient was in the office a few days ago and there is no renewal of the symptoms yet. I believe in this case there had been a syphilitic condition that gave rise to the condition; and I believe sooner or later we will base our diagnosis on those findings.

Dr. Griffin, Norman: I am very sorry I missed hearing the paper but pellagra is always interesting to me. For a number of years I had to deal with pellagra without knowing what I was dealing with; perhaps for ten years before I found out what I really was trying to treat. I never will forget a case that came to my mind that perhaps made me think more about it than any other case that ever came to me. The case was a young lady who came to our institution and was suffering from what was thought to be a case of insanity, which, of course, was true. Shortly after her confinement I remember I was going through the wards one morning and noticed this lady having a terrible condition of the back of the hands and feet and also I noticed quite a blister on her neck. I took the nurse quite severely to task for allowing the lady to become exposed to the sun. She assured me that this was not the case,

but it was hard to convince myself that she was telling the truth until her statement had been corroborated by others. This case went from bad to worse and finally the disease extended to the elbows and the back of her neck and up in the hair and she gradually wasted away in exhaustion. Then I began to make it a study and I remember the first case reported by some doctor in South Carolina. Then I began to tabulate my cases and I made them a study and finally I reported a case to Dr. Mahr and he came over and brought Dr. Lain with him and we made out a clear case of pellagra. That was five or six years ago and since that time we have kept up with it pretty well and I presume within the last ten years we have had as many as one hundred or more cases in the institution, nearly all of which have proven fatal. We have tried to arrive at some cause for this disease. We have examined the blood and the urine and feces and thus far we have failed to discover a real cause from these sources. So I have come to the conclusion that it is not a disease *per se*, but that it is a disease coming on from some constitutional disease, or rather is a symptom of it. I have yet to find the case of a real robust hearty individual. A great many of the cases come on in the last stage of tuberculosis, consumption, or when the patient is down to the point of exhaustion. We have tried to work out a cause. Most of our Southern physicians used to claim that corn was probably the cause of the disease. We find it in the Western country and in the Western country we find but little corn bread is eaten. I have had several cases that told me they had scarcely ever eaten corn bread at all; and so I have come to the conclusion that it is not really a disease *per se*, but a symptom. We find it in our idiots and in all exhaustive cases. I thank you.

Dr. Lee, Oklahoma City: We find where the skin lesion is quite marked the administration of arsenic preparation is quite good.

Dr. Glasscock, Kansas City, Kan.: I was interested in the doctor's paper. I do not believe, though, that I could agree that malaria is the exciting cause. While the disease we have up has existed quite a while and was not diagnosed by American physicians, it is comparatively recently that we have had the cases. I believe you will find that fifty years ago there were not many cases. I am inclined to think that malaria is not the exciting cause, because it is not so recent.

Corn is spoken of. Some of you will state that it is due to diseased corn. Now if that is true the disease might not be confined to corn. If it is a condition of diseased corn we might find it in other things. Undoubtedly it is a toxic disease. The fact that in many instances the case develops into melancholia bears me out. I would not, however, say that the experiments in Italy for over a hundred years amount to nothing.

The Chairman: I believe one or two have called attention to the fact that possibly this disease did exist and they did not discover it. That may have been the case with it for a long time. The doctor said he felt sure his patient had been exposed to the sun, and one or two

others mentioned they thought it was a skin disease. I call attention to this because one or two brought out these facts.

Dr. Marshall: I do not know anything about this, but I read of one man who observed his patients carefully and every one of them had been using cottonseed oil products, and he said that there was found in the cottonseed oil products the same thing found in this spoiled corn. He thought it was probably caused by this particular acid, and the doctors always find it in the other things that is in corn. It is a fact that our Southern people and other people everywhere are using cottonseed products more now than ever used before. I am not knocking on the cottonseed oil products, but that was his theory.

Dr. Lain, Oklahoma City: The discussions upon pellagra are always interesting to me, and most as amusing as interesting, since I presume the theories of pellagra which have been advanced are just about as numberless as the remedies for vomiting of gestation. In reference to the last theory of cottonseed oil: I do not presume any one in the South or other states who has read the history of pellagra can consider the theory a moment, since pellagra existed for a century in Italy, where cotton was not raised and cottonseed oil was not known. The corn theory, and one which seemed to have merit upon its face since it was given to us by the man who went over to Italy and heard what the Italians had to say about pellagra. The corn theory, as we all know, is not accepted by the Americans. Whether it is because Americans do not like to accept anything imported or whether we have a disposition to go more deeply into the subject and have it proven, I cannot say. When I first read the theory after I lost a patient or two without making a diagnosis of pellagra it suddenly dawned on me that this must be it. After I had seen the first half dozen or dozen cases and then recalled my experience upon the farm and seeing my father's stock die with what we called the "blind staggers," I thought it was surely it; because the blind staggers, so called, was so similar to pellagra.

Without trying to advance the theory as to the cause, and expressing my sincere regrets of missing the paper, I have only to say this: The most cases I have seen—and I have seen quite a goodly number—I have one on my hands now that I think will jump to Dr. Griffin real soon. The more I see of pellagra and study it the more I am convinced that we do not know what it is.

Regarding the theory of the fly, which is so commonly found along the streams of water: I accepted that as a plausible theory and began to run over my cases and I found in the history of them that two or three per cent had not lived near a stream of water. I thought this must be it. Then I began to reason and it is a matter of fact that practically all our cities and most of our rural homes are located near a stream of water for drainage purposes, and naturally that would give a higher percentage of cases from streams and drainage territory, and then after a little closer investigation I found that this was not running water, and come to the firm belief that the stream of water theory has not been

proven. I do not think we should just accept a theory advanced, but should continue to investigate and discuss the question until such a time in the near future we will have a reasonable and acceptable theory as to the cause of pellagra.

The Chairman: If there is no further discussion on the paper Dr. Callaway will close the discussion.

Dr. Callaway: Gentlemen, I thank you for your discussion. I want to say in conclusion I have studied this subject closely for a number of years. For twelve months I have been condensing in order that I might present nothing in the paper but the bare theory sufficient to enable you to understand it. Our profession is conservative. It is generally, but not always, sane. It is conservative, but it is safe. No man could put forward a theory like this and expect acquiescence, unless he was addressing a company of school boys. I did not expect it, but I put it before you and I place it before you as a foreword. If I live I shall present you much more detail hereafter. I have treated nothing of the pathology or the symptomatology. So far as treatment is concerned there is "nothing doing." For me, at this time, to get outside of the purpose of the paper in replying to some statements made by the doctors would get me beyond the scope of this paper or the purpose for which it was written. I thank you for your liberal discussion of the paper and I hope you will take it home to yourselves, and I feel sure you will not forget it.

"AFTER POE—A LONG WAY."

Once upon a midnight dreary,
The doctor slumbered weak and weary.
And all the town could
Hear him snore.
While he lay there sweetly napping,
Suddenly there came a tapping;
Like a ram-goat madly rapping
His hard head upon
The door.

"Get thee up!" a voice cried loudly,
"Come at once!" he shouted proudly,
Like a man who owned a million,
Or much more.

But the doctor never heeded—
Back to dreamland fast he speeded.
For such men as that he needed
In his practice
Nevermore...

For long months that man had owed him.
Not a cent he'd ever paid him.
And the doctor now will dose him
Nevermore.

—Dr. S. L. Brooking, Journal of the Kansas Medical Society.

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EDITORIAL**RADIOACTIVITY OF WATERS.**

The Bureau of Chemistry of the Department of Agriculture has issued a warning to the people to the effect that a great fraud is about to be perpetrated in the matter of advertising the virtues of "Radioactive Waters." The warning, as is well known to the medical profession, is well grounded and has sound basis of fact. For a long time it has been a craze almost to claim superlative curative value for waters in certain places and it is not uncommon to see patients "chasing the cure" by running from springs to springs as their attention is called to this or that resort. As a matter of fact very little is known of the value of radium as a curative agent, and what is claimed is claimed by authorities for radium, not some fictitious, mis-branded and over-vaunted water, which if it does possess radioactivity, soon loses it after bottling and leaving the springs.

The claims of some European physicians as to the value of radium in malignancy must be given careful consideration, of course, before one is in position to either deny or affirm the contention, but it should be remembered that many physicians are very certain in their statements that they

could find no warrant for the claims of the users of radium in malignant conditions.

It will probably be found that radium has a distinct place in the armamentarium of the physician in a certain limited class of cases, but we should not allow ourselves to attempt to make a cure-all of it and above all things we should not, as some physicians have been doing, just send a patient to the springs on the hit or miss proposition that it may do good. It should also be remembered that radium is a drug to be used by physicians and not patients and that its use should be confined to the hands of those who know its dangers and limitations or are at least qualified to note its action.

INFECTIOUSNESS OF LEPROSY.

The recent discovery of a case of leprosy in the County Farm of Muskogee county induced a certain amount of interest in this rare affection—rare so far as we are concerned in Oklahoma, with especial reference to its contagiousness.

From time immemorial the disease has been looked on with loathing and to many physicians unfamiliar with its aspects and behavior it has been vaguely considered with considerable dread. As a matter of fact it is probably greatly less infectious than tuberculosis and much less likely to be contracted even by those exposed daily to contact.

A recent publication issued by the United States Public Health Service citing the investigations of Surgeons McCoy and Goodhue of the service throw much light on this phase of this strange infection. They found that of those subject to infection by close attendance on the leprous or the husband or wife less than 5 per cent became infected. Of males and females there seems to be no practical difference as to susceptibility. These citations rather upset the calculations of earlier observers who noted that the percentage of those exposed who became infected was much larger; the present observers state that no such conditions as to infection exist today as were formerly reported and know of no reason for the discrepancy unless it be explained on the better general understanding of sanitation and prevention. It should be noted that many of those exposed to infection, really all of them, are voluntary exiles, subject to certain regulations of the leper colony. It is stated that many of them rather welcome contraction of the disease as that places them beyond expulsion from the colony for infraction of the regulations. The report also states that no cases contracted since 1908 are considered in the tables given.

THE GUILLIBILITY OF PHYSICIANS.

An attache of the Postoffice Department having fraud orders especially under his charge, is authority for the statement that brokers and houses proposing to sell fraudulent stock and shares pay more for lists of physicians than any other class of people.

This is a reflection on the "easy" business methods of the physician that should cause us to sit up and think. Collectively no class of men work harder for what they receive than the physicians, and the profession is inadequately protected by law when it comes to the collection of fees. Laborers of every class, skilled workmen and even attorneys have a lien on the property of their employers; the first two classes are not to be deprived of their earnings even by exemption laws, while the attorney rests secure in many states, especially in Oklahoma, in the knowledge that any settlement made by his client and the opposing attorney is prohibited by law and if made does not release the party making it.

These conditions are the result of years of agitation and active interest in the enactment of laws protecting those interested. It seems they have worked to fortify themselves while we have in a way neglected the business side of medicine, which is as essential to success as any other side.

Physicians necessarily have not much time to attend to anything except their professional duties which accounts for their shortcomings as business men, but if they will remember that what is offered them with facile pen and glowing picture as a bonanza, is almost invariably a gold brick; that if the agent offering the stuff knew it was the good thing he says it is, he would borrow money and buy it himself, then the doctor will stand a good show to retain the money he has accumulated slowly, bit by bit, under bad conditions. Just remember that nearly everything in the world that is worth having is scarce and hard to get; that every time a promoter tells you of a man investing five hundred and coming out in a year with several thousand, there are dozens of others who invested five hundred or more and still owe the bank they borrowed it from.

If we will take what little we can rake together and lend it safely at 8 per cent, and there are plenty of such opportunities now in Oklahoma, we will eventually become the soundest of professions, but any other course, especially one involving the investment of money in things we know nothing of, trusting its management to unknown men, is likely to result in disappointment.

A DENTAL VIEW OF OUR BEHAVIOR.

THE RECENT STATE MEDICAL MEETING.

The writer had the privilege of attending several sessions of the State Medical Meeting and came away fully convinced that the Oklahoma State Medical Association could take some valuable suggestions from the Oklahoma State Dental Association in the conduct of a state meeting. They would undoubtedly derive a great deal more benefit from their meetings by adopting our post-graduate plan in their state association work.

It was not an uncommon thing to see men in different parts of the room visiting or telling stories, while some essayist was reading his paper.

There seemed to be general confusion and many matters were hampered by delays.

Brothers, try our plan and you will have something of enough interest to claim your attention, not only that but it will increase your attendance to the point it should be.

This is not written in a spirit of criticism but from one of pride as the contrast between the two different state meetings is so great I could not refrain from speaking about it.—Quarterly Bulletin, Oklahoma State Dental Association, Published at Enid.

The criticism is well taken. It is unfortunate that the critic could not have been more specific and pointed out just which section he criticised. There was some confusion when two sections attempted to use the same meeting place simultaneously. (The section on Eye, Ear, Nose and Throat preempted the space and time previously allotted to Gynecology and Obstetrics.) This little lapse of the proprieties produced much disgust, and rightly so, in the mind of the gynecological chairman. Conversation during papers may be observed at all medical meetings, the National Sections not excepted; even the staid and deliberate United States Senator cracks a little joke or "joshes" his political rival during debate. We are not prepared to say what kind of mental pabulum was being preached when this diversion, so annoying to our dental brother occurred, but we undertake to condone the offense on the ground that to many the annual meeting is the only annual vacation; the visitor is like a young colt, too taken up with everything about him to sit up like a Puritan and keep still, he just must visit a minute or so with Bill and Jack and John, who maybe he has not seen since leaving college; he is only demonstrating that doctors are just men, so excuse him.

We are advised to try the post-graduate plan. The writer probably never heard that the post-graduate plan has been in operation in county societies for more than ten years.

The allusion to attendance is the offspring of misinformation. Considering the distance of Enid from other parts of the state, the fact that it required often two days or nights to get there, the attendance was fine. The best most state societies have is from fifteen to twenty-five per cent of membership, the National does well if it has from ten to twenty, the latter almost unheard of even in the effete and proper East. We had about twenty per cent at Enid.

We suggest that the next time the Enid physicians draw the white elephant in the shape of the annual meeting they have a subcommittee from the dental profession to introduce innovations.

PERSONAL AND GENERAL NEWS

Dr. M. B. Prentiss of Pawhuska has removed to Bartlesville.

Dr. F. W. Ewing, formerly of Waurika, but lately temporarily located in Washington, D. C., will soon return to Waurika.

Dr. C. M. Bloss and **Dr. Watts** of Okemah have formed a partnership.

Dr. A. B. Montgomery, Muskogee, will remove to his old home, Checotah.

Dr. and Mrs. V. Berry, Okmulgee, recently visited Cleveland, Dr. Berry attending the clinics.

Dr. C. D. Simmons has removed from Stillwater to Orlando.

Dr. and Mrs. W. E. Wright took a motor trip to the Atlantic coast for their summer vacation.

Dr. F. S. Whitacre of Butler has removed to Texas.

Dr. T. B. Hinson of Thomas is doing post-graduate work in Chicago.

Dr. P. L. Cain has removed from Durant to Bennington.

Dr. J. W. DeVry is preparing to move from Helena to Forgan.

Dr. George A. Kilpatrick has returned from an extended European trip, during which he attended the International Congress of Medicine in London.

Drs. Allen Lowry, **A. P. Gearhart** and **A. S. Risser** bought a building in Blackwell recently which they have fitted up as a modern hospital. They propose to open it to patients about October 15.

Drs. J. E. Stinson and **L. E. Emanuel** of Chickasha have been appointed pension examiners at that point.

Drs. Rawls and **Fox** of Altus had charge of the Better Babies Contest at the Jackson county fair held at Blair.

Dr. F. M. Edwards of Fairland and **Mrs. Martha Church** of Reeds, Mo., were recently married. They will make their home in Fairland.

Dr. J. B. Ellis, Shawnee, who sometime since suffered from a paralytic stroke, is reported to be improving.

Dr. P. P. Nesbitt, Muskogee, took a vacation in Missouri the latter part of October.

Dr. LeRoy Long, McAlester, who spent the summer in Europe, incidentally taking in the International Congress in London, has returned. During his absence Dr. Long visited a great many points of interest in Europe including Italy and French and German points.

Dr. G. E. Hartshorne of McAlester, who visited Europe this summer, returned on the steamer Imperator recently and is back at his old location again.

Dr. L. H. Murdoch, Okeene, attended the Medical Association of the Southwest after which he visited relatives and friends in Kansas and Arkansas.

Dr. Harry Biender, Okeene, recently received an injury sufficient to put him in the cripple class and on crutches for a few days.

Dr. F. L. Watson of Alderson will soon move to McAlester. It is reported he will be associated with Dr. W. C. Graves.

Dr. E. N. Allen, for many years one of the foremost surgeons of McAlester, Division Surgeon for the Rock Island and formerly Chief Surgeon of the C. O. and G. Ry., is preparing to move to Little Rock, Ark.

The malpractice suit of White against Drs. A. J. Snelson, Checotah, and Claude Thompson, Muskogee, was brought to a very sudden termination in the District Court of McIntosh county, October 21. The presiding judge, Preslie B. Cole, directing the jury to return a verdict for the defendants immediately after the plaintiff had offered all their evidence. An amusing and edifying spectacle of the trial was an ex-president of the Oklahoma State Medical Association attempting to pose as a man informed in the treatment of epidemic meningitis, summoned by the plaintiff. Out of his own mouth he was made to admit that he had not seen a case in fifteen years, had never performed intraspinal puncture for diagnostic purposes and had never treated a case according to modern methods of serotherapy.

The Medical Association of the Southwest held its annual meeting in Kansas City at the Coates House, October 7 and 8. The attendance was said to have been very good and the papers of a very high class. The following officers were elected:

President, Dr. S. S. Glasscock, Kansas City, Kansas.

Vice Presidents, Dr. J. D. Griffith, Kansas City, Missouri; Dr. J. D. Dodson, Vernon, Texas; Dr. D. A. Myers, Lawton, Oklahoma; Dr. L. H. Ellis, Hot Springs, Ark.

Secretary-Treasurer, Dr. F. H. Clark, El Reno, Okla.

Galveston was selected as the meeting place for 1914.

Section officers elected were: Medicine, Dr. E. S. Lain, Oklahoma City; Surgery, Dr. C. H. Cargile, Bentonville, Ark.; Eye, Ear, Nose and Throat, J. S. Lichtenberg, Kansas City, Mo.

Mayes County Medical Society held a meeting October 6 at Pryor. The local physicians tendered a banquet. The visiting physicians through the courtesy of Mayor W. A. Graham, were driven to the State Orphan Home and shown through the institution.

Mrs. R. W. Pence of Jet, Oklahoma, stepped into the doctor's shoes during his absence in Minot, North Dakota, and reported the meeting of Alfalfa County Society held at Cherokee. The following was the program: "Etiology, Pathology and Prognosis of Typhoid Fever," H. A. Lile, Aline. "Symptomatology of Typhoid," T. A. Rhodes, Goltry. The next meeting will be held at Carmen, November 5th.

Muskogee County held its first meeting after the summer vacation October 13. The report of a Committee on Tuberculosis cures appointed during the summer was passed for further time and investigation. A paper by Chas. B. Gifford on The Collection of Physicians' Accounts elicited considerable discussion and brought out many curious facts relative to the law of collections. Dr. J. H. Stoiper presented an informal and tentative proposition looking to the organization of a physician's defense plan in Oklahoma on which a committee of consideration was appointed.

The Northeast Oklahoma Medical Society (6th Councillor District) held its meeting at Bartlesville October 14. The attendance was good and the papers read were reported as being of high class. Drs. G. A. Wall, Oklahoma City, and Clifford P. Johnston, Coffeyville, Kansas, were visitors, Dr. Wall reading a paper on Incontinence in the Female; Prognosis and Treatment. The next meeting will be held in Nowata.

THE STATE BOARD OF MEDICAL EXAMINERS' MEETING IN MUSKOGEE—CLASS "C" COLLEGE GRADUATES NO LONGER RECOGNIZED.

The Board adopted a resolution declaring in effect that hereafter Class "C" schools graduates would not be licensed. They denied the application for reciprocity from Texas of Dr. Felix Peebles of Bivins, Texas, a graduate of the Gate City Medical College and later of the St. Louis College of Physicians and Surgeons, also a class "C" school.

The application of Dr. W. F. Gordon, Temple, Okla., was also denied in view of certain specific charges filed against him and he was denied permission to withdraw his application for license.

Certificates issued on prior license: I. B. Breckinridge, McAlester; Fred S. Brown, Oklahoma City; Frederick W. R. Turner, Sapulpa; Robert F. Donnell, Agency, Mo., (Mounds).

Lack of space forbids publication of questions, but it is a remarkable fact when one considers the present day tendency to severe examinations and catch questions, that the examination given was extremely practical. A good average student should have no trouble in making a passing grade and demonstrating his fitness for registration.

The following applicants were examined: Jamie W. Rogers, University of Michigan, 1913, Ozark, Mo.; Edwin Davis, University of Arkansas, 1913, Wagoner, Okla.; Houston B. Fite, Tulane, 1913, Tahlequah, Okla.; Roy Alton Morter, University of Oklahoma, 1913, Norman, Okla.; C. H. Day, Baylor Medical College, 1913, Bomar, Okla.; Peter Cope White, Jefferson Medical College, 1911, Tulsa, Okla.; George A. Nieweg, Bennett Medical College, 1913, Belle, Mo.; Anna E. Cisar, College M. & S., Chicago, 1903, Oklahoma City; J. A. Egbert.

The next meeting will be held in Oklahoma City, January, 1914.

NEW BOOKS

A CLINICAL MANUAL OF MENTAL DISEASES.

A CLINICAL MANUAL OF MENTAL DISEASES. By Francis X. Dercum, M. D., Ph. D., Professor of Nervous and Mental Diseases, Jefferson Medical College, Philadelphia. Octavo of 425 pages. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$3.00 net.

The aim of the author in writing this work was to produce a book suitable for the needs of the student and general practitioner and an inspection of it convinces one that the object has been attained. A great deal of the tiresome detail is eliminated, many of the rarer affections not ordinarily observed are either not considered or in a very condensed manner, if at all.

Much attention is given to the clinical aspect of nervous affections treated in the book, and this phase of it makes it very desirable to the practitioner.

HOW TO COLLECT A DOCTOR BILL.

By Frank P. Davis, M. D., Ex-Secretary Oklahoma State Board of Medical Examiners, Ex-Superintendent Oklahoma State Institution for Feeble Minded, Member of Various County, State and National Medical Societies; The Oklahoma Association of Charities and Correction, Late Editor, Davis' Magazine of Medicine. Cloth, 98 pages, Publishers, Physicians Drug News Company, Newark, N. J., U. S. A. Price \$1.00.

We welcome this first as a production of an Oklahoma man and concerning a subject due more attention than is given by the individual physician. We are all taught more of the altruistic side of medicine when in college than the practical when the business side of medicine is considered. It goes without saying that as a rule physicians are indifferent business men and we overlook the fact that for our work we must receive an adequate compensation or somewhere along the line we suffer deterioration.

This little volume contains many sound suggestions that may be used as laid down or modified to suit individual conditions for the doctor's benefit. It contains the exemption laws of all states and territories, which alone will save the physician the labor of searching through tiresome volumes in search of the information. The principal feature noted is the desire of the writer to make of physicians better business men and incidentally better physicians.

INTERNATIONAL CLINICS.

VOLUME THREE, TWENTY-THIRD SERIES, 1913. Edited by Henry W. Cattell, A. M., M. D., Philadelphia, with the collaboration of American and European authors. Illustrated, Cloth, Price \$2.00.

Two striking articles command the reviewers' attention in this volume: the first, The Diagnosis and Treatment of Malarial Infections, by Charles F. Craig, M. D., Captain, Medical Corps, U. S. Army, is illustrated thoroughly. Craig states that there is no reason for chronic malarial infection except improper treatment, barring those cases that cannot be given quinine.

On the Treatment of Pneumonia by Norman Gwyn, M. D., Philadelphia, a most exhaustive and painstaking article consisting of a critical comparison of different modes of treatment.

BIENNIAL REPORT 1910 AND 1911 STATE BOARD OF HEALTH OF KENTUCKY.

Published for free distribution to any citizen of the state of Kentucky. This report reflects great credit on the Public Health Officials of Kentucky and contains a fund of information relative to the work done in prevention of infectious diseases in that state.

THE DISEASES OF CHILDREN.

THE DISEASES OF CHILDREN, by Henry Enos Tuley, M. D., late Professor of Obstetrics, University of Louisville, Medical Department; Visiting Physician Masonic Widows and Orphans' Home, Louisville, Ky.; Secretary of the Mississippi Valley Medical Association; Ex-Secretary and Ex-Chairman of the Section on Diseases of Children, American Medical Association; Ex-President American Association Milk

Commissions; 106 engravings and 3 colored plates; 2nd revised edition, cloth, 684 pages. Price \$5.50. C. V. Mosby Company, St. Louis, 1913.

The writer has very properly devoted a great deal of space comparatively to the much-neglected propositions of infant feeding, which we will all agree is the important phase of infant life to which all other considerations must remain secondary.

In this connection the supervision of dairies, milch cows and the transportation and keeping of milk is given due importance as well as the various rules for modification of milk.

The book contains chapters on the diseases of the eye, ear, nose and throat, which aside from the commoner infections incident to childhood, might be said to be more properly placed in works dealing specifically with those subjects.

ESSENTIALS OF PRESCRIPTION WRITING.

ESSENTIALS OF PRESCRIPTION WRITING. By Cary Eggleston, M. D. Instructor in Pharmacology, Cornell University Medical College, New York City. 32 mo. of 115 pages, W. B. Saunders Company, 1913. Cloth, \$1.00 net.

This will be found a very useful little book for students and young physicians just starting in the work. Every man on entering his career as a medical practitioner is embarrassed more or less on the questions involving prescription writing; this book has condensed the needed information pertinent to that branch of medicine and as such should merit careful perusal.

THE PRACTICAL MEDICINE SERIES FOR 1913. Comprising ten volumes on the year's progress in medicine and surgery. Under the general editorial charge of Gustavus P. Head, M. D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School, and Charles L. Mix, M. S., M. D., Professor of Physical Diagnosis in the Northwestern University Medical School.

VOLUME 1 AND VOLUME 6, GENERAL MEDICINE. Edited by Frank Billings, M. S., M. D., Head of the Medical Department and Dean of the Faculty of Rush Medical College, Chicago, and J. H. Salisbury, A. M., M. D., Professor of Medicine, Chicago Clinical School. Price, \$1.50 each.

VOLUME 2, GENERAL SURGERY. Edited by John B. Murphy, A. M., M. D., LL. D., Professor of Surgery in the Northwestern University, Attending Surgeon and Chief of Staff of Mercy Hospital, Wesley Hospital, St. Joseph's Hospital and Columbus Hospital, Consulting Surgeon to Cook County Hospital and Alexian Brothers Hospital, Chicago. Cloth, 632 pages. Illustrated. Price, \$2.00.

VOLUME 3, THE EYE, EAR, NOSE AND THROAT. Edited by Casey A. Wood, C. M., M. D., D. C. L., Albert H. Andrews, M. D., Gustavus P. Head, M. D. Cloth, illustrated, 370 pages. Price, \$1.50.

VOLUME 4, GYNECOLOGY. Edited by Emilius C. Dudley, A. M., M. D., Professor of Gynecology Northwestern University Medical School; Gynecologist to St. Luke's and Wesley Hospitals, Chicago, and Herbert M. Stowe, M. D., Associate in Gynecology, Northwestern University Medical School; Attending Physician Cook County Hospital. Cloth, illustrated, 230 pages. Price, \$1.35.

VOLUME 5, PEDIATRICS AND ORTHOPEDIC SURGERY: PEDIATRICS. By Isaac A. Abt, M. D., Professor of Pediatrics, Northwestern University Medical School, Attending Physician Michael Reese Hospital.

ORTHOPEDIC SURGERY. By John Ridlon, A. M., M. D., Professor of Orthopedic Surgery Rush Medical College. With the collaboration of Charles A. Parker, M. D.

WHY SOME PEOPLE DISLIKE THE AMERICAN MEDICAL ASSOCIATION.

A member of the advertising department of The Journal of the American Medical Association was talking recently with a man we may call Mr. X, who was the representative of an association which obtains and furnishes advertisements for religious papers. Mr. X volunteered the information that he was going to seek some other line of work and, when asked why, replied that the American Medical Association had, by its campaign against fraudulent "patent medicines" and quackery, greatly curtailed the advertising field of the religious press. The sheet-anchor of advertising in religious papers has always been the "patent-medicine" business. "The religious paper," said Mr. X in effect, "gets its subscribers largely through the efforts of the local pastors in smaller towns. Now, since the American Medical Association has been showing up the fraudulent 'patent medicines' the local doctor, who is usu-

ally a man of some influence in the community, protests to the pastor against this class of advertising in their church paper. The pastor writes to the publisher saying that it is impossible for him to recommend the paper unless such and such advertisements are dropped. And there you are!" Under the present economic system, it is impossible to fight organized evil without at the same time doing some financial damage to those who have, however indirectly, profited by the existence of that evil. Yet the general good far outweighs the personal inconvenience caused by a worthy man having to give up what, until comparatively recently, has been a rather profitable occupation.—Ohio State Medical Journal, Aug. 1913.

ERGOT THAT JUSTIFIES YOUR CONFIDENCE.

When a physician uses fluid extract of ergot he wants an active, reliable product. Maybe he gets it. Maybe he doesn't. Strictly prime ergot is seldom available in quantities sufficient to meet the world's requirements. As to genuine Spanish ergot, the superiority of which is universally conceded, the supply is comparatively limited.

It is a well-known fact, too, that the ergot of tomorrow may not be the ergot of yesterday. Fluid extract of ergot is apt to suffer deterioration—through oxidation, it may be; through loss of alcohol, perhaps—especially if the product stands for a considerable time upon the druggist's shelves or is dispensed from large or partly emptied containers.

Fortunate, then, is the physician who gets a dependable ergot and knows that he gets it.

In view of these facts, the ergot announcement which Parke, Davis & Co. make elsewhere in this Journal is timely and pertinent. It gives assurance of an active, reliable ergot—an ergot that is prepared from genuine Spanish drug, that is carefully tested physiologically, and that is supplied in small original containers (one-ounce amber bottles), each in a carton which protects the product from the action of light. This fluid extract of ergot is unhesitatingly commended to the medical profession.

A CLEAN RECORD IN THE CANAL ZONE.

Those who have been following the remarkable record of the work of sanitation of the Isthmian canal, and have watched the gradual reduction of the death-rate and the elimination of preventable disease, have hoped that before the monumental work of constructing the canal was finished it might be possible for Colonel Gorgas to present a report that would be clean as far as death from disease was concerned. The report of the Department of Sanitation for the month of August, 1913, just received, shows that during that month there were thirty-nine deaths from all causes among the employees of the canal commissioners. Of these, one, a Peruvian, died of malaria; another, a Spaniard, of alcoholism, and the third, a Greek, of appendicitis. The only deaths among white Americans which occurred during the month were two from violence, one due to an accident on the railway and the other to an accident in the quarry. Among the 12,481 white American men, women and children on the Isthmus connected with the commission—that is, employees and their families—not a single death from disease occurred. The exodus from the Canal Zone has already begun; those employees whose work has been completed are returning to the United States with their families. The number of American citizens resident in the Canal Zone will probably decrease steadily in the future. It is a fitting climax, says The Journal of the American Medical Association, to the work of Colonel Gorgas, which has challenged the admiration of the civilized world, that the month which probably marks the high tide of American occupancy of the Canal Zone should have passed without a single death from disease in the American colony.

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C. R. Day, Security Building, Oklahoma City, 1913.

John W. Duke, Guthrie, Oklahoma, 1913-14-15.

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J. B. Smith, Durant, for three years, 1912-13-14.

A. D. Young, Oklahoma City, for two years, 1912-13.

Geo. A. Boyle, Enid, for one year, 1912.

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Next meeting Oklahoma City, January, 1914.

Address all communications to the Secretary, Dr. J. W. Duke.

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THE JOURNAL



Oklahoma State Medical Association.

VOL. VI

MUSKOGEE, OKLAHOMA, DECEMBER, 1913

No. 7

DR. CLAUDE A. THOMPSON, EDITOR-IN-CHIEF.

THE PHYSICIAN AND THE PHARMACOPOEIA.

Chas. W. Fisk, M. D., Kingfisher, Okla.

The remedies we use in our daily ministrations to the sick and suffering are our working tools. As such they must reflect the skill or inefficiency of the workman. It would, therefore, interest us, who are qualified to pass judgment, to know what remedial preparations are being used most frequently by the representative physician in general practice.

An investigation has been made by J. Uri Lloyd, with a view of learning what drugs of vegetable origin are most frequently used. Letters were sent to non-eclectic physicians, selected as we are informed, in such a manner that they would represent the trend of modern medicine. In reply to these letters he obtained the information that the remedies of vegetable origin most frequently used are in order as follows: Echinacea, aconite, cimicifuga, gelsemium, pulsatilla, veratrum and cactus. One hundred and seventeen preparations were listed and no less than eighteen of the official drugs received no mention. Among which we find buchu, cinchona, jalap, physostigma, senega, stramonium and ginger. Only once was mention made of cubeb, gentian, rhubarb and senna.

The eclectic physicians were consulted, with the finding that they also use most frequently the first five in the above mentioned list.

The first conclusion reached after a comparison of the lists, we are ready to endorse unconditionally, and we quote it in full: "The practicing physicians of America now freely employ any remedial agent that appeals to them as being useful, regardless either of its origin or the school or affiliations of its introducers."

To obtain a more satisfactory report, about thirty thousand letters were sent out and ten thousand answers were returned. The articles were listed and were checked in answer to the inquiries in the order of their preference. The findings have been quoted in the drug journals

and have been commented upon editorially in a journal which is widely circulated among physicians. Over sixty per cent of those who answered the inquiry used cactus more frequently than any other drug. It was followed in order of rank by hydrastis, aconite, gelsemium, ipecac, digitalis, ergot and belladonna. Opium was sixteenth and cinchona thirty-seventh.

The second conclusion was in substance that physicians prescribe largely on their own judgment, regardless of the recommendations of their instructors in therapeutics and of the Pharmacopoeia, and also heedless of the opinion of "those in authoritative positions."

After expressing surprise at the findings the editor states that these preparations are not used as a result of advertising because, forsooth, cactus stands at the head of the list and it has not been much advertised, although it has received much opposition from "those in authoritative positions." On the other hand, we are informed that sarsaparilla, the most persistently advertised of all, is placed at the tail end of the list. Here it is implied that sarsaparilla is advertised to the medical profession and that it has received the endorsement of "those in authoritative positions."

We have tried to unravel the inscrutable mysteries of this revelation but have, so far, failed to obtain a satisfactory solution. Perhaps the lists furnished contained only the tinctures and fluid extracts. Then many of the more useful remedies would be overlooked, because the active principles are more generally used. If this were the solution, how did cactus get into the lead? This theory is not tenable, for it is freely advertised that the result of this investigation is a complete vindication of cactina and that it should effectually silence the opposition of the "two or three investigators who are opposed to it."

So far as can be learned from the review of the list as given, these representative physicians have no occasion to use a laxative or purgative of vegetable origin. The eclectics introduced podophyllin. Seudder told us how to use it. How did it get lost in the shuffle?

There is a source of error in this method of determining the reliability of remedial agents. The really dependable drugs are not necessarily the ones most frequently used. There are many whose rational employment limits their use to conditions which we do not meet every day in our practice. With opium sixteenth in the list, our profession is thoroughly purged of the charge which is publicly and persistently made against us, even in the halls of the Congress of the United States, that we are using this drug to an extent that is little less than criminal.

While some of the drug journals and some others consider this report as really indicating the trend of modern medicine, it seems strange that it can be taken seriously. From the wide publicity given to this investigation, it is confidently expected that the general practitioner will be influenced by it in the selection of his most dependable remedies. Those who publish this information as an advertisement will not be disappointed. They know too well how easily we are influenced.

Physicians carelessly use their remedies as children playing with toys, quickly tiring of one to take up another. It is easy to find fault with the public for their readiness to use patent medicines, and the easy credence they give to published testimonials. Our profession should be very charitable toward the public in this regard. We cannot see clearly to extract the mote from the eye of the public until we have removed the beam from our own eye. Sometimes I fear that as a profession we are suffering from an incurable corneal opacity. Should one of our number state that he has carefully and impartially tried out cactina over a period of nearly a quarter of a century, and has found no evidence of its usefulness as a heart tonic, it would not leave even a passing impression. Should another use it a few times and write a glowing tribute to its magic powers, his smiling countenance will adorn the page of some up-to-date journal and the influence of this recommendation will go down to posterity.

The semi-secret proprietary and the preparations masquerading under a trade-mark name are degrading the practice of medicine to the same extent and in the same manner that the patent medicine is debasing reputable pharmacy. Why should it be necessary to be a registered pharmacist to be able to hand out to the public Hood's Sarsaparilla or Swamp Root? Why should a physician be required to register to be qualified to treat disease with the ready-made prescription?

A bill has been introduced in the legislature of one of the states to prohibit the prescribing of remedies whose nature and composition are unknown to the prescriber. Such legislative action cannot be tolerated. It strikes a blow at the personal liberty of the progressive practitioner who feels that he has an inalienable right to dispense Ayer's Sarsaparilla or S. S. S. If we ever make the practice of medicine anything near an exact science, we must abandon the ethereal and intangible, and have some foundation upon which to build the superstructure.

The Pharmacopoeia and National Formulary are the only recognized standards of drugs and medicines for the use alike of the pharmacist and the physician. The hostile criticism that is freely bestowed upon them comes from those who are exploiting remedies of uncertain standard and often of doubtful value. We do not claim for the Pharmacopoeia that it is a text-book on Materia Medica. On the contrary it does not even pass upon the merits of the drugs listed; but it does give assurance that the one calling for a preparation will receive that for which he calls. Without such a standard there would be no uniformity in the drugs and pharmaceuticals we use daily in our practice. It contains some drugs of little or no utility, but so long as they are in common use they cannot be discarded. The remedy with a copyright name cannot be admitted because it cannot be standardized. It may be changed at the will of the proprietor. With no change of name, it may be acetanilid today and phenacetine tomorrow.

The National Formulary has admitted some things which have not yet been given a place in the Pharmacopoeia. It contains five hundred

formulas which are recognized as a standard by the manufacturers of pharmaceuticals. In the preface to the first edition we find this statement.

"The mission which this work is to fulfill can only be properly accomplished by the co-operation of the medical profession. It is, therefore, of the greatest importance that the members of this profession, throughout the country, be made acquainted with the existence, contents and objects of this book, and that, if the same be approved by them, as is confidently expected, they will accept the preparations made in accordance with the formulas contained therein, instead of designating any special maker's product."

The co-operation of our profession has not been as hearty as it should have been for several reasons. The Pharmacopoeia and Formulary have been the vade mecum of the pharmacist, but have not appealed to the physician. They contained no indication of the therapeutic application of the remedies listed, and for reasons which were considered sufficient the dosage was not given. It has repeatedly been shown that to popularize their use it would be necessary either to make these necessary additions or to publish a separate work for the use of our profession. These objections have been partially answered in the recent edition.

The Association publishes in handy and inexpensive form a key to the Pharmacopoeia and National Formulary, which should be in the hands of every physician who has the desire to maintain a high standard of efficiency in therapeutics, and who has the desire to work for the advancement of our profession.

However carefully concealed the allusions may be, the real offenders, against whom dire maledictions must be hurled, are the Council on Pharmacy and Chemistry. They are the leaders in authoritative positions. They are the exponents of the great medical trust, which is now threatening the medical freedom of the American people. They furnish advice as to the status of the drugs and pharmaceuticals, both new and old. We do not claim for them omniscience or infallibility. We do claim that the work they are doing, if properly supported by a united profession, will mark an epoch in the scientific treatment of disease. Their destructive criticism has doubtless thrown down some idols which have been long venerated by the profession.

Such an advisory body is a necessity. It is absurd for any physician in general practice to depend wholly upon his own experience in the employment of drugs. There are no less than seventy derivatives of digitalis alone, which are known and described; besides various modifications and combinations, not included in this list, are supplied by the manufacturing chemists. There are nine hundred and forty official drugs, about twenty-five thousand ethical proprietaries in general use, and twenty-five thousand secret proprietaries. These lists are increased every day by the ceaseless activities of the manufacturers.

Rational medicine is overwhelmed by a needless, unscientific polypharmacy. Our text-books include useless medicines, because each author

must give not simply the best and most reliable remedies, but must include many of the old which should be discarded, and many of the new which have not been thoroughly tested.

The teachers in medical colleges are obliged to cover a broad field, not the better to equip the young doctor for the relief of suffering and the cure of disease, but to provide the wide range of information necessary to pass the examination of the state boards.

In this condition of affairs the general practitioner is overwhelmed with the hopelessness of the undertaking, if he conscientiously endeavors to give his patrons the benefit of the best treatment that is afforded by both the new and the old.

There are many of the widely advertised proprietaries whose only claim for therapeutic efficacy depends upon the time-honored, much-neglected drugs of the pharmacopoeia.

Some of the most important advances in therapeutics of recent years have been made, not by the introduction of the new, but by the re-discovery of the old.

Our Association has wisely undertaken to bring order out of chaos by selecting the Council on Pharmacy and Chemistry, whose duty it is to furnish wholesome advice and wise counsel.

They are the ones whose advice is disregarded by the rank and file, to the great delight of those who profit by our criminal carelessness and childlike credulity.

They have not hesitated to question the utility of many of the official remedies, but they cannot, with impunity, attack those masquerading under a trade-mark, or those manufactured under special conditions known only to the proprietors.

This Council deserves the hearty support of every honorable member of our profession. Let us not be influenced in our choice of remedies by those who have a mercenary interest in exploiting our profession, but harken to the wholesome advice of those who are laboring for our emancipation.

With our support they will liberate the medical profession from the shackles which we have thoughtlessly forged for ourselves, and have long and patiently worn, little realizing the degradation of our abject servitude.

DISCUSSION.

Dr. Bradford, Shawnee: I did not hear all the paper. We are working along those lines in our county. There are so many of those medicines used in which the dosage is not known. It is a little harder sometimes to write a prescription than to write the name of a preparation, but I think that there should be special attention paid to this and that we should throw off these shackles.

The Chairman: I heard the dean of Medicine in the Middle West, Dr. Billings, when in consultation on a case, very politely tell a prom-

inent and busy medical man in Chicago, who had called him in on the case, that evidently he did not know what he ought to do, because he had used two or three unknown proprietary remedies. Dr. Billings prescribed things that are well-known and got better results with exactly the same intentions as this other man. Is there some one else that will discuss this interesting and important paper?

Dr. Hume, Anadarko: Two years ago I was called to the bedside of a physician who was dying from an overdose of some kind of proprietary medicine. When I went into the room I did not know him. His face and neck were blacker than my hat. I said: "Is this Doctor So and So?" And I would not have known him if his wife had not been with him. It is too easy sometimes to write some name; easier than to write two or three words. The doctor's wife did not know what he had been taking. We found out afterwards, however.

Dr. Church: During my study in Chicago my wife was taken sick and we consulted our professor on therapeutics. He had been teaching us to use simple remedies. He examined her and prescribed something, and I looked through the text-book and could not find it there. That was my first year in school, and I have thought many times since it was a poor practice to use proprietary remedies when he was teaching us different from the text-book.

Dr. Fisk: One of the 1912 works on practice recommends a well-known proprietary and furnishes the manufacturers' key name—KALFIG—to be used by the physician in prescribing it. There are many of the patented remedies whose patent has expired and they can be purchased under their chemical name at a great saving of expense. Diuretine costs about \$1.75 per ounce, but if ordered as Theobromine and Sodium Salicylate it can be purchased for about one-third as much. I find Merck's Index a valuable reference for determining those on which the patent has expired. The Key to the Pharmacopoeia, published by the American Medical Association, is a valuable little reference work and should be in the hands of every physician.

OVARIAN CYSTS.

Dr. R. L. Holt, Mangum, Oklahoma.

In beginning a discussion of this subject, it might not be amiss to give a definition of the term and a few statistics that I have gathered at random during my studies in preparing the present paper. This may prove of value in the subsequent reading and discussion.

An ovarian cyst is a cavity containing fluid, with a capsule, and arising from some portion of the ovary.

Of all tumors occurring in the pelvis, 7.9% arise from the ovary; 4% contain dermoid material.

A large portion of the ovarian cysts in children are of the dermoid variety.

It is the general rule that ovarian cysts develop in women during the period known as the sexual period.

Ovarian cysts are not uncommon even in infancy and old age.

It is not a rare thing to find ovarian cysts concurrently in both ovaries.

A sensible classification of these growths was the hardest task I have ever tried to perform. They may be divided into three great varieties: (1) Oophoritic, (2) Paroophoritic, and (3) Parovarian. The Oophoritic may be further divided into (1) Follicular, (2) Glandular, and (3) Dermoid.

The paroophoritic variety has no subdivision. The parovarian variety is divided into (1) Simple and (2) Papillomatous.

The oophoritic variety are those springing from the functioning or ovulating part of the ovary.

The Paroophoritics arise from the attachment of the organ or nearby. The parovarians arise from the Parovarian body or organ of Rosenmuller.

Oophoritic cysts are always intraperitoneal, but are never covered by peritoneum. On the other hand, parovarian cysts are always extraperitoneal, situated between the layers of the broad ligaments. This is so because the organ of Rosenmuller is always found between these two layers and gives origin to this form of tumors.

Follicular cysts are caused by a chronic inflammation of the ovary, in which the secretion is sealed up in a graafian follicle. This may be due directly to an inflammatory exudate on the surface of the ovary or to a thickening of the tunica albuginea. The stroma is increased at the same time. This division usually present themselves bilaterally, are of limited size and are found during sexual life. They never attain very great size. They may be composed of one or many follicles and, in case more than one is included, the septa may rupture, allowing a large cyst cavity to form. The fluid contained in them has a sp. gr. of from 1002 to 1020. It is usually clear, but, owing to extravasated blood, it may be dark colored. They sometimes contain a purulent fluid. They are intraperitoneal, always.

Glandular are by far the most common variety found. They arise from the tubules of Pfluger. They are found at any age, but usually some time during sexual life, unless altered by some change in contents or an inflammation, the external surface is silvery. Secondary retention cysts are often found and, when present, lobulate the cyst. Of course, these lobulations disappear when the cyst grows to great size. The wall opposite the pedicle often becomes quite thin and may rupture. This form is usually unilateral. It develops intra-peritoneally. The surface of the ovary is destroyed soon after the tumor begins to develop. The sp. gr. of the fluid found in this variety varies from 1010 to 1045 or 1050. Pseudomucin is found in this variety.

The lining of these cysts is somewhat like mucous membrane. In small cysts of this variety, the fluid is usually more or less semi-solid but, as the cavity grows larger, the fluid loses most of its solid constituents. In some cases, where the cavity is very large, the fluid is found clear. At the beginning, this variety is multilocular, but as the cavity enlarges the septa break and atrophy, finally resulting in the formation of one large cavity. These attain an unlimited size, and are very rapid in growth, the woman usually living only three to five years. This is almost the sole cause of an enormous abdominal enlargement in a woman. The upper layer of the broad ligament, the fallopian tube and the ovarian ligament, one or all, are sacrificed to the formation of its pedicle.

Dermoid cysts are usually found in connection with the ovary, but may be found in most any part of the body. Their characteristics are the presence of certain materials in them, such as teeth, bone, hair, nails, horns, sweat glands, modified brain matter, a portion or all of a mammary gland, etc. The cause is unknown. They are usually unilateral, are of limited size, as a rule. Rarely are they found much larger than a quart cup. Their development is intra-peritoneal. The cyst surface is dark, skin lines a part or the whole of the cyst. If hair is found, it is usually dark, sheds frequently, and grows from a modified skin. Like that of its host, as it grows old, the hair turns gray. The average number of teeth found is five or six. They may be loose or attached to a modified maxillary bone. Secondary retention cysts are often found, due to degeneration of the glands found in the cavity. The accidents which occur to a dermoid determine the consistency and color of the contents. As a rule the contents are somewhat like that of a sebaceous cyst. The bones found are usually flat. The teeth may be attached to one of them, and in this case, the bone resembles, more or less, one of the maxillary bones. Dermoids are found at any age. Other cysts may arise from the same ovary that fosters a dermoid. So-called "Large Dermoids" are sometimes formed when one of these ruptures into another. Dermoids as a rule are unilocular.

Paroophoritic cysts are distinguished from other varieties by the fact that they contain warts on their internal surface. These warts vary in color from white to dark red. The origin of these cysts is a mooted question, but most men believe that they arise from the Wolffian body. They may develop either intra or extra-peritoneally. If extra-peritoneal, they are covered by the layers of the broad ligament, hence are sometimes called "intra-ligamentary cysts." They usually appear bilaterally, are of limited growth and occur at any age. They are most common, however, during sexual life. Ascites is often found due to irritation. They may be single or multiple, but are usually multiple. They may be sessile or pedunculated and vary in size up to the size of the double fists. The fluid is usually clear and varies in sp. gr. from 1010 to 1040. An accident may change the sp. gr. of the fluid. This form is considered to be the most dangerous form of ovarian tumors, because of the fact that they often rupture, scattering warts all over the peritoneum and, inverting,

form a papillomatous mass at the site of the cyst. A leak during operation may cause warts to form in the abdominal wound. The only favorable feature is that they are slow growing and are always limited in size.

Parovarian, or broad ligament cysts, arise from the vertical or longitudinal tubules. As they grow, they separate the layers of the broad ligament and eventually reach the Fallopian tube and stretch it. This may lengthen the tube to as much as 20 inches. These growths are intra-ligamentary but extra-peritoneal. Peculiarly, the ovary is rarely affected, but is found perched, unharmed, on the wall of the cyst. They are of slow growth and never grow very large, but give great trouble, due to their location. The worst symptoms are those of pressure. This variety is never seen before sexual life. It is unilateral, unilocular, and its rate of growth is uncertain and variable.

The simple parovarian contains a fluid, usually clear, with a sp. gr. of 1005 to 1021.

The papillomatous parovarian resembles the papillomatous paroophoritic.

Just at this time, to clear up in your minds the differences between the cysts which are similar, allow me to present a table which, I think, will remove any cloudiness that may have arisen:

Glandular Cyst	Paroophoritic Cyst	Parovarian Cysts
Occurs at all ages, most in sexual life	All ages. Usually between 25 and 50. Rare before 25.	Never before sexual life
Comes from Tubules of Pfluger.	Comes from remains of Wolffian Body.	Comes from longitudinal or verticle tubule of Organ of Rosenmuller.
Unlimited size.	Limited size.	Limited size.
Multilocular.	Usually unilocular.	Usually unilocular.
Unilateral.	Bilateral.	Unilateral.
Contents have a Sp. Gr. of 1010-1050. Contains Pseudomucin.	Contents have a Sp. Gr. of 1010-1040. Contains warts.	Contents have a Sp. Gr. below 1020. May or not contain warts. Clear fluid.
Intraperitoneal.	May be intra- or extra-	Extraperitoneal.
Ovary is early destroyed. Tube unaffected.	May or may not be, depending on direction of development.	Tube is stretched. Ovary unaffected.
Not accompanied by ascites as a rule.	Ascites is present.	No ascites.

Ovarian cysts are prone to complications. These are usually divided into four classes, viz: (1) Inflammation, (2) Suppuration, (3) Torsion of the pedicle, and (4) Rupture of the cyst.

Inflammation and suppuration: Inflammation is rather common. It is more often seen in small cysts and those wedged in the pelvis. The infection usually migrates from the bladder, intestines, tubes or appendix. This infection usually results in more or less adhesions. It may become adherent to any structure near it. It is most often found adherent to the omentum. The adhesions are often so vascular that the cyst receives most of its nourishment through them.

Suppuration, in this day of aseptic surgery, is very rare, but in other days, it was common. This was due, as a rule, to infection during aspiration, etc. You can usually suspect inflammation by localized points of tenderness over the cyst. In operation, we must always remember the possibility of adhesions, otherwise we may tear away the appendix or do some other serious damage. Suppuration makes itself known by its classic symptoms, as chills, fever, sweats, etc. Localized peritonitis is not uncommon when a suppurating cyst is present or the cyst may rupture, giving generalized peritonitis. Cases are on record where a suppurating cyst ruptured into one of the hollow viscera. Rarely, cases are found which rupture externally. When this occurs, the sinus thus formed is small and septicaemia usually kills the patient.

Torsion of the pedicle: This is most often seen in small and medium-sized cysts, but is not rare in large ones. It is also more often seen in pregnant women than in others. The direct cause is not known. One theory is that it is due to contraction and expansion of the abdominal wall. Another is that it is due to coughing, straining, hiccoughing, etc. The direction of the twist is usually inward, that is, toward the median line. The pedicle is rarely twisted off. In case this happens the cyst is nourished by the adhesions. One case is reported where twelve complete turns of the pedicle was noted. This was a gradual and chronic process, of course. The vessels, in this case, like all others of its kind, had had time to adjust themselves and no pressure symptoms of the pedicle had arisen. When pressure symptoms do occur, it is due to a sudden half or whole twist. In these cases, we frequently have the additional symptoms of hemorrhage, necrosis, thrombosis, etc.

Rupture of the cyst is rather common and especially in the papillomatous varieties. As a rule, it is due to some sudden strain, together with atrophy of the wall. Other causes are erosion of the walls by papillomatous growth inside, necrosis of the wall due to poor nutrition, suppuration in any part of the wall. When this rupture does occur, if the fluid is not septic, the kidneys usually handle it with little trouble and no injury occurs. If the fluid is large in amount, and is septic, serious injury results. If the cyst contains warts, these will be planted wherever the fluid may gravitate.

Prognosis: The prognosis of all varieties is almost always bad unless operative interference is resorted to. After the cyst attains large size, the patient rarely lives more than two or three years. The cause of death is usually malnutrition, uremia, exhaustion, etc. Peritonitis, embolism, thrombism, malignancy among the papillomatous growths and rupture are often causes of death. Pressure on a vital organ sometimes kills. Spontaneous cure, from any cause, is rare.

Degeneration that a cyst may undergo: In operating on these growths we are not surprised to find, in some cases, that the walls have undergone calcification, fatty degeneration, atheromatous degenerations, or that infarcts have lodged in the vessels giving grayish spots due to poor

circulation. Those very things are often encountered. Calcification is especially apt to be found when the blood supply is gradually cut off, as we find in torsion of the pedicle. The atheromatous variety, unlike the others, takes place in the inner wall of the growth. The more fatty degeneration, you find, the slower growing is the cyst because both depend on poor nutrition.

Rate of Growth: All grow slowly, except the glandular. In this form, fluid may accumulate at the rate of 2 or 3 pints a day. One case is on record where 10,000 pounds of fluid was removed by tapping, in 300 removals.

Differential Diagnosis, Diagnosis and Physical Signs: In making a digital examination, for the presence of an ovarian tumor, we must bear in mind that there are four conditions that bulge the walls of the cul-de-sac of Douglas beside a broad ligament cyst. These are (1) Retrodisplacement of the uterus, (2) Fibroids of uterus, (3) Inflammatory masses such as pelvic abscesses and salpingitis, and (4) Ectopic gestation.

As a rule, in follicular cysts, you find a mass on both sides of the uterus, on digital examination. In any ovarian cyst, which is large, you find the uterus pushed to one side or the other, and up or down, as a rule. A tumor is found independent of the uterus. A broad ligament cyst usually presents in the cul-de-sac and then pushes to the sides. In cysts of large size and great tension, you are frequently unable to make out the uterus.

Physical Signs of all Varieties, Inspection: If the tumor is large, it is found in the median line, is spherical, smooth, unless secondary retention cysts are present, and has a sudden, abrupt rise from the pubis. It forms almost a right angle with a horizontal plane through the pubes.

Percussion: Dulness over the tumor, unless a coil of intestine is adherent to its anterior surface, when you get resonance.

Palpation: It may or may not be possible to obtain fluctuation, depending (1) On the tenseness of the cyst, (2) Whether multilocular or unilocular and (3) On its contents.

Auscultation: Nothing.

The three most difficult things to differentiate from ovarian cysts are (1) Fibroid tumors of the uterus, (2) Pregnancy and (3) Ascites. This differential table may assist in their differentiation:

Fibroid Tumor.	Ovarian Cyst.	Pregnancy.
(1) Slow growth.	More rapid growth.	Quite rapid growth.
(2) No facies particularly.	Facies Ovarianaca.	No facies.
(3) Menorrhagia and Metrorrhagia.	No menstrual disorders.	Amenorrhea.
(4) Usually comes after 30 years of age.	At all ages	During sexual life.
(5) More common in negroes.	Equal in all races.	Equal in all races.

Fibroid Tumor	Ovarian Cyst	Pregnancy
(6) Inspection. Assymetrical abdomen.	Sudden abrupt rise from pubis and enlarged veins in abdominal wall.	Symmetrical distention.
(7) Palpation:—Hard and irregular mass.	Large ones are smooth, fluctuation may be present if not too tense.	Symmetrical distention, contractions and foetal movements.
(8) Percussion:—Dullness.	Dullness.	Dullness.
(9) Auscul:—Nothing.	Nothing.	Foetal heart sounds.
(10) Digital Exam:—Tumor connected with the uterus.	Tumor separate from uterus.	Tumor is the uterus itself, signs of pregnancy.
(11) Uterine cavity increased in depth, as a rule.	Cavity is normal.	Uterus is enlarged.

ASCITES.

(1) Suddenly develops.	(7) Smooth distention, sometimes the enlarged, hard mesenteric glands can be felt.
(2) Waxy color, puffiness.	(8) Tympany above pubes, dullness in the flanks changes with position.
(3) Scanty or amenorrhea due to anaemia.	(9) Nothing.
(4) At any age.	(10) No tumor, normal sized uterus, bulging in the posterior fornix.
(5) Equal in all races.	(11) Uterus not involved.
(6) Symmetrical distention, bulging in flanks, prominence of navel, enlarged veins of abdominal wall.	

In all early cases of cysts, let me again emphasize the fact that we must be careful to exclude small, subserous, pedunculated fibromyomata, inflammatory masses in the appendages and tubal pregnancy. We must also remember that these conditions may coexist with ovarian cystomata. To make a positive diagnosis, it may be necessary to give a general anaesthetic to relax the perineal and pelvic tissues. "If you find an absence of any of the conditions that are most often confounded with an ovarian cyst, and yet find a movable, clearly outlined, globular mass in the ovarian region, which is not especially tender to the touch, and which is discernible on bimanual palpation, it is an ovarian cyst." After a cyst has obtained some size and yet has not arisen from the pelvis, it is usually easy to diagnose, but after rising out of the pelvis it is more difficult. To facilitate matters, I am going to classify these and take them up in turn. (1) I will take up those cases which have risen out of the pelvis and yet fill only a part of the abdominal cavity. These cases must be differentiated from (1) Normal pregnancy, (2) Ectopic gestation, (3) Distended bladder and (4) Cystic degeneration of a uterine growth. A distended bladder is easily disposed of by introducing a catheter. Extra-uterine and normal pregnancy should not offer any special obstacles. Look for the classic symptoms in each.

When it comes to cystic degeneration of a uterine growth, it is often hard to distinguish between the two. If you can elicit an enlargement of the uterus, lengthening of the canal, menorrhagia, metrorrhagia, and continuity of the tumor and uterus, a diagnosis will be easy.

(2) I will take up that class which fill the abdomen. Here we must be careful to exclude (1) Ascites (2) Collections in cyst-like cavities, due to peritoneal tuberculosis or cancer (3) Obesity and (4) Large renal or hepatic cysts.

In ascites, watch for history, chronic disease of the heart, liver, kidneys and peritoneum, flattened abdomen and bulging in the flanks when the patient is recumbent, change of the flat note on moving the patient, dullness greatest from flank to flank, abdominal wall usually soft and lax, resonance on anterior abdominal wall while patient is recumbent and no sharp outline of a tumor. In contrast to this, when an early cyst is present, you usually find that you have a lateral, movable tumor, abdomen protrudes centrally, circumference is greatest below the umbilicus, umbilicus is not prominent, abdominal wall is tense, fluctuation is found more distinctly in front, changes of posture unaffected the dullness, limits are sharply outlined, and the tumor is surrounded by resonance. In cyst-like collections in the peritoneum, we can usually clear up the case by the history and lack of cyst signs and symptoms. Obesity is easily differentiated, as a rule. In renal and liver cysts you usually have a line of resonance between the pubes and the cyst. This is not present in ovarian cysts. In liver cyst the dullness is continuous with liver dullness. In renal cysts the dullness extends up under the ribs and around to the spine. You usually have resonance in front of it. None of these phenomena occur in ovarian cysts.

Symptoms of Ovarian Cysts in General: Symptoms usually do not arise until a complication arises. They are usually due to one of three things, viz., (1) weight, (2) pressure or (3) complications. Early cases often present no symptoms. Parovarian cysts are the only ones that give bladder symptoms, as a rule, due to hindrance of their forward growth. In these cases you often get pain and tenesmus. In other cases, a vague pelvic distress often leads to the discovery of a cyst. Most subjective symptoms are usually absent. In early cases, menstrual disorders are rarely seen. Menorrhagia is the most often seen of the menstrual disturbances. As the cyst grows large, the pressure on the abdominal and pelvic organs give rise to disordered digestion, faulty secretion and excretion, emaciation, renal disorders and faulty assimilation. Pressure on the ureters may cause uremia. Cardiac complications are sometimes seen, hemorrhoids are sometimes present. Sometimes anasarca and varicosities are seen in the lower limbs. Pressure on the diaphragm, in late cases, sometimes gives rise to dyspnoea and cyanosis. Pain and various functional disorders may arise from adhesions between the cyst and some adjacent organ or structure. Insomnia is sometimes seen in late cases. Emaciation and feebleness are seen only in extremis. Painful defaecation is rarely seen. Late cases are rarely seen now because they are usually operated on before reaching a critical stage. However, "Facies Ovarianca" are sometimes seen in these cases and present sunken eyes, anxious expression, bony prominences are plainly seen, depressed angles of the mouth and dilated nostrils.

In broad ligament cysts, pain is more often seen than in the others, due to pressure and adhesions. Ovarian dysmenorrhea is often seen. Also frequent and painful urination and defecation.

The symptoms of a rupture vary. If the fluid is small in amount, and not septic, there is slight pain, faintness and nausea, followed by diuresis. If the fluid is large in amount, or septic, there is acute pain, collapse, shock and free fluid is found in the peritoneal cavity. Death usually occurs in a short time.

The symptoms of an acute twist are sudden, severe abdominal pain, vomiting, subnormal temperature and rapid, feeble pulse. You have an abdominal tumor, of course. Chronic cases present no symptoms. In acute cases, the tumor suddenly enlarges, when the twist occurs.

Treatment: The treatment is wholly operative. There is no such thing as palliative or medical treatment. Operate as soon as you discover the condition. Nearly all authorities agree that, when a cyst is discovered, it should invariably be removed, whether giving trouble or not. In case both ovaries are involved, and the woman is young, make an attempt to save a part of one ovary. In small follicular cysts, you may be able to shell out the cyst and close the cavity with sutures. I shall not take up any technic in this paper.

ABDOMINAL TOTAL HYSTERECTOMY.

Dr. Curt Von Wedel, Oklahoma City, Okla.

Among gynecologists there has always existed a great diversity of opinion as to the easiest and best methods of procedure for hysterectomy. In this country, especially among the newer generation of surgeons, the abdominal method has been the one of choice; Europe, however, leans toward the vaginal route.

While it is not the object of this paper to go into any extensive argument in favor of the abdominal route, nevertheless a few salient facts are in order. In choosing our methods of approach, we must consider several points:

1. Safety.
2. Anatomical restoration.
3. Convalescence.
4. Results.
5. Inspection of the abdominal viscera for existing trouble.

Safety: The abdominal method is unquestionably safer, because, 1st: Absolute control of hemorrhage; 2nd, Less chance of sepsis under proper precautions; 3rd, Less apt to have bladder and ureteral complications. Ureteral, because traction upward separates ureters from the uterus, while with downward traction vice versa is true. There are, however, unquestioned cases when the vaginal route should be chosen, as in very fat women or women with very short vaginas or when great rapidity is necessary.

Anatomical Restoration: It is only by the abdominal route that we can be at all positive of perfect restoration and the minimum of adhesions, and especially is this applicable to adhesions about the ovary. Nowhere are we confronted with such a distressing condition as we have when an ovary becomes imbedded in a mass of adhesions following some inflammation or operation, and it is only by the abdominal route that we can, with any degree of assurance, lift an ovary up on the broad ligament out of harm's way.

Convalescence: May be slightly more protracted and shock greater than in rapid vaginal hysterectomy, but the difference is of such a narrow margin that it adds but little as a factor.

Results: Those who have had the opportunity to watch the results of both methods in a large clinic, cannot help but be impressed with the uniform results in the abdominal methods, there being little or no complaint of pain from dragging of adhesions or from ovarian pressure. Likewise there is an almost total absence of such sequelae as cystocele, prolapsus, vaginæ, etc.

Inspection of the Abdominal Viscera: It is needless to impress upon surgeons the absolute necessity of a routine examination of the abdominal viscera. Taking, then, that we have decided upon the abdominal route as our method of procedure, how, then, shall we proceed? Shall we do a total or sub-total hysterectomy? Most surgeons and gynecologists are insistent advocates of the sub-total method. They say:

1. It is easier.
2. It has a lower mortality rate.
3. We are less apt to have prolapsus vaginæ and resulting cystocele and rectocele.
4. We have something to attach the round ligaments to.

Taking up these arguments separately:

1st. I do not believe it is very much easier, but if one has a fear of cutting into the vagina, let him do a supra-vaginal amputation; then with very little added trouble or difficulty, he can excise the stump, either by splitting it until he reaches the vaginal wall, or better still, by causing traction on the stump and directly cutting into the vagina and rimming out the cervix. But all this is very seldom necessary, since if the bladder be sufficiently stripped from the anterior vaginal wall, we have the ureters dragged out of harm's way and consequently nothing to fear from cutting directly into the vaginal vault.

2nd. That the sub-total is safer and less apt to cause shock. This is not true, as in the hands of competent men, statistics show there is no difference.

3rd. The chief argument against total, is the claim that we are more apt to get resulting rectocele and cystocele. In answer to this, I wish to state two facts: First, Cystocele and rectocele cannot take place unless we have a loss of intactness of perineum. Second. That save for its tip, the perineal vault is left untouched, and this tip or vault is held up by the

lateral ligaments of the pelvis and not the cervix; that the cervix acts as a wedge to keep the bladder and rectum from prolapsing, is wrong. Therefore in removing the cervix, we remove a body whose only value in preventing prolapse is as an anchor for the lateral ligaments (Mackenrodt's Lig.) It is these ligaments in conjunction with an intact perineum which support the vagina and prevents cystocele and rectocele, and not the wedge-like action of the cervix. Consequently if we re-unite these ligaments one to the other, we have restored the anatomy of the perineal vault, and have prevented prolapsus vagina.

4th. All recent authorities are unanimous in their opinion that the round ligaments are muscular in structure, whose only function is to prevent retro-displacements. However, they are easily sutured to the apex of the vagina as to the cervix.

Having thus shown that there are really no arguments against the total method, we plea the following as urgent reasons for advocating it:

1. We are leaving behind a useless part of a diseased organ which many times is infected and lacerated.

2. It is very apt to undergo carcinomatous degeneration, which alone is reason enough to cause its immediate removal.

3. We are leaving a piece of an organ whose blood supply has been greatly diminished, which consequently is liable to undergo ulceration and infection, resulting in a watery, foul-smelling discharge.

4. We have a weight suspended at the apex of the vagina which tends to invert it.

5. It is a known fact that many headaches, backaches and other nervous phenomena are due to lacerated cervixes, yet many of our operators are content to leave in this very body which they are so very urgent in removing for the alleviation of this syndrome.

Our Method of Procedure.

1. Ample incision.

2. Ligation of broad ligaments, leaving the ovaries wherever possible. The tubes are also left wherever possible, as their removal cuts off quite some ovarian blood supply.

3. Ligation of round ligaments. We ligate broad and round ligaments, as phlebitis is not so apt to follow ligation as it is the clamp method.

4. The two layers of the broad ligaments are then separated and the anterior peritoneum and bladder separated well down from the wall of the vaginae, thus carrying the ureters forward out of harm's way. The uterine arteries are now felt and ligated just to the uterine side of the ureter. This is distal to the circular artery of the cervix, thus preventing troublesome hemorrhage later.

5. The vaginal vault is now opened and the uterus and cervix trimmed out, the vaginal wall being grasped by four forceps and traction made to prevent any bleeding from the plexus of veins which surround it.

A stitch of No. 2 chromic is taken one-fourth of an inch from the lateral margin, one-half inch in width, which includes vaginal wall, lateral ligament and fascia. The same is taken on the opposite side, all bleeding having been controlled, the vaginal margin is inverted and the two stay sutures are ligated—the anterior end of one to the posterior end of the other, so as to form a cross, thus firmly uniting the cut ends of our lateral ligaments. One immediately notices that instead of sagging, the vaginal vault becomes tense and remains in perfect position. The rest of the opening is now carefully closed with No. 2 chromic, inverting until some tension is put on the sutures. The bladder is then sutured over the vaginal vault and the broad ligaments closed by puckering in a draw. The round ligaments and stumps of the broad ligaments are sutured to opposite lateral ligaments and all raw surfaces are closed by suturing the anterior peritoneum to the posterior layer, plain cat gut or very fine silk being used. The abdomen examined for existing disease in other organs and closed by layer method with plain gut.

DISCUSSION.

Dr. H. S. Crossen, St. Louis:—I am very much interested in this paper because the Doctor brings out a number of interesting things that have been discussed so much. There is some difference of opinion in the manner of surgeons and physicians in regard to the method to pursue. The question of inflammation of the fibroids has troubled me a good deal. We are very apt to jump at conclusions in these cases. If they have a malignant case of the cervix it does not necessarily mean that it came on after the operation. Now when the uterus is removed we want to know if it is infected with a malignant disease. We determine that by opening the uterus, and then if there is carcinoma of the uterus it is very apparent on inspection. And maybe carcinoma would result in tumors. I saw an operation and asked why he did not open the uterus. He said he did not make a practice of opening all uteri. He said he found it was not necessary only in large tumors, or if it was of very rapid growth. I know personally, though, that this doctor opens practically all cases. However, the fact remains that if the tumor is large or of very rapid growth it should be opened. We may not be able to say whether it is carcinoma or sarcoma; it can be done very quickly by those familiar with the work.

Dr. Berry, Okmulgee:—The doctor is right. Now as to the difficulties of the operation. In some cases it is very hard and in some cases it is very easy. I did an operation of this kind in which I cut a hole in the bladder, and I want to tell you that thing kept me busy for awhile. I sewed it up but it did not stay sewed. About two or three months after she got up I tried to close that thing and I made a failure, and I tried about a month later and I made a failure. She went to a hospital and the doctor could not close it. I tried it again and it stuck. However that is nothing against this operation. It was simply an accident. As to the danger to the uterus, I do not think we will have any trouble if we follow directions. Of course, with an abdominal tumor it is sometimes an impossibility to deliver through the vagina.

Dr. G. A. Wall:—How far back was that buttonhole in the bladder?

Dr. V. Berry:—About two inches back of where it joins the uterus.

Dr. von Wedel (closing):—I have seen a great many operations by this method and I know that they have adhesions because I have examined many of the cases, and as for the case of removing the cervix I do not think it takes more than three or four minutes to remove it. It is very easily split. I am very sorry to hear the doctor speak as he did of the cervix. If a routine examination is made you will be surprised at the number of cases of carcinoma beginning. In the hospital an examination is made of all tissues.

***AN UNWRITTEN CHAPTER IN GYNECOLOGY, UTERINE AND ADNEXAL SYPHILIS.**

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During the last four years syphilology has been revolutionized. This has been accomplished by the discovery of the *Spirochaeta Pallida* and practical clinical methods for its demonstration; by the Wassermann and provocative Wassermann reactions, as guides to diagnosis and treatment; and lastly by the addition of Salvarsan to our armamentarium. As a result of these new methods our information has been rapidly extended.

A review of literature reveals that before 1870 syphilis was recognized as a skin, or superficial, disease only. John Hunter^① declared he had "never seen syphilis affect the brain, heart, stomach, liver, kidneys or other viscera."

Astley Cooper^① said "the brain is one of those tissues which do not appear to be altered by the influence of the venereal virus."

Such quotations are probably sufficient to show how remarkable has been our advance in knowledge. We now recognize the brain and spinal cord as among the first organs to manifest symptoms of tertiary syphilis. The indices of our leading text books enumerate between fifty and sixty organs of the human body now known to be commonly luetic. It is a surprise to find that most English and American texts on surgery and gynecology do not index syphilis of the uterus, tubes or ovaries. If these subjects are mentioned they usually receive but three to six lines of often inaccurate comment. Most of these texts were written before the Renaissance of Syphilis. On turning to current literature we find that the exhaustive index of foreign and American current literature, published by the Journal of The American Medical Association, shows no reference to any article on this subject in the last four years. For this reason much that I have to say in this paper will at least have the virtue of novelty.

Barren books and barren current literature either mean that syphilis of the female internal genitalia is very rare, or justifies the conclusion that gynecologists have been slow in applying new methods of investiga-

^{*} Presented to the Section on Gynecology and Obstetrics of the State Medical Association of Texas, San Antonio, May 10, 1913. Prepared for Section on Gynecology and Obstetrics, Enid Meeting, May, 1913.

tion to their department of learning. The tremendous importance of syphilis in the female demands the highest skill of the gynecologist, as well as of the genito-urinary specialist, both for the protection of the individual and the race. The prevalence of the disease also emphasizes the necessity for active investigation. Based on statistics and opinions prior to the advent of the Wassermann reaction, Professor Irving Fisher^② quoting Morrow, states there are approximately two million syphilitics in the United States, or over 2% of the population. Neisser, perhaps the best German authority, states that over 5% of the population of Germany are syphilized. The Wassermann reaction has shown such an unexpected prevalence of latent syphilitic infections that it is my belief that these American statistics, especially for our more populous communities, should be doubled. Whatever the statistics, I believe it true that the average physician at present does not correctly diagnose over one in five of his syphilitic patients.

Syphilis, soon after its inoculation in the human being, becomes a general speticemia, the specific micro-organism invading every organ of the body. Gradually the old ideas of the resistance of certain structures to alteration by this disease have been shown to be false. In the light of this progress and of the following considerations it is no longer reasonable to assume that the female internal genitalia belong to such an immune group.

Syphilis of the Uterus.

Chancre of the cervix is the commonest form of uterine syphilis at present recognized and mentioned by gynecologic texts. It was first reported by Lang, I believe, as late as 1883. He found it more common on the posterior lip. Neymann,^⑤ of Vienna, found that 15% of primary luetic lesions of females occurred on the portio. In 757 women with chancres 115 had the lesion on the portio, 62 on both lips, 32 on the anterior lip, the one subject to most traumatism in ante-flexion, and 21 on the posterior lip. In appearance these lesions resemble, to me, more nearly mouth infections than the usual penile chancres. They often appear as yellow, apparently fat-covered ulcers, with rather sharply defined indurated borders. I have seen them, before any eruption, present the shiny indurated plaque-like appearance of secondary syphilides of the tongue and soft palate. Such lesions, according to the tissue destroyed, may heal with or without a scar. I am convinced they are not more often discovered because mistaken for Nabothian cysts, or obscured by lacerations, erosions, or mucus.

The cervix is at times attacked by a more massive infiltration, which may be mistaken for malignancy. Doubtless some of the cervical carcinomas reported in the past, which disappeared, or were cured by caustics, or potassium iodid or mercury were of this nature. The difficulty of diagnosis is shown by a case reported by Neisser:^⑤

A woman presenting a thickened, soft, not ulcerated cervix, complained of hemorrhage and abdominal pain. A microscopic section of the cervix was pronounced "round celled Sarcoma." While preparations were

being made for uterine extirpation an exanthemata was discovered. The diagnosis was charged to lues and the woman cured by mercury.

Lichtenstein^⑤ reports a stenosis and resulting hematometra as the result of such a cervical lues.

Syphilitic endometritis is as yet little recognized and understood. I believe it to be the commonest form of uterine syphilis. That there is much to be determined I think is beyond question. Virchow^② was the first to note a papular endometritis commonly found at the post mortem of those who had suffered with severe syphilis. He was also the first to describe the deleterious changes produced in the maternal decidua and fetal membranes as soon as the ovum became imbedded in the uterine mucosa of luetic women.

As a further step, Gafenberg^⑤ demonstrated enormous masses of loosely tangled spirochetes in the congenitally luetic fetal uterus, which might well lead to a later myometrial or endometrial pathology. He failed to demonstrate spirochetes in a series of adult curettings removed from syphilitics. It is possible that here, as in the case of infected semen mentioned later, the spirochetes are not numerous, or the infection is not in the form of the present recognized spiral and that we must resort to animal inoculations for further information.

An extensive syphilitic endometrial infection is believed by many authorities to be the cause of the so-called membranous dysmenorrhea, but further cases, checked by Wassermann reactions and inoculations, must be studied, before a definite opinion is justified.

In 1902 Morisani^⑤ published the results of histologic study of uterine syphilis, based on an enlarged uterus, extirpated for repeated hemorrhages unrelieved by repeated curettings. The patient had a luetic history covering eighteen years. His conclusions may be summed up by saying that uterine syphilis is characterized histologically by advanced degeneration of the blood vessels, intima showing marked increase of connective tissue and elastic elements, fibrinous hyperplasia of the adventitia and atrophic changes in the media. In the smaller vessels this change seemed to begin in the adventitia and this was considered by the author as the origin of the process.

The most complete classification of uterine syphilis is presented by Von Jaworski.^⑤ He distinguishes (1) ulcerations of the portio; (2) leucoplasia of the cervix; (3) endo-uterine ulceration; (4) gumma; (5) syphilitic sclerosis of the entire uterus; (6) late angiosclerosis. He reported five cases of the last form, mostly confined to the lower half of the uterus, but high enough to affect the lower endometrium. The condition led to chronic endometritis. The uterus was not soundable without hemorrhage. The patients suffered from irregular hemorrhages, which he ascribed to a loss of elastic elements and a sclerosis of the uterine vessels. The five cases were cured by mercury.

A. Dreyer,^⑤ collected fourteen cases of uterine hemorrhage due to syphilis.

Muratow,⁵ in 1907, basing his report on a large clinical observation, that those cases where hemorrhage was not cured by curettment and styptics, were remarkably relieved by antisyphilitic medication, stated that syphilitic uterine hemorrhage, in his belief, was very common. The cases were most often seen in young women of tender, weak, anemic constitution, the uterus was usually not enlarged nor sensitive, but the cervix was of increased firmness and with a tendency to hyperemia. His brilliant results by antisyphilitic treatment pointed to hereditary endometrial and constitutional syphilis.

In 1909 Falk⁵ demonstrated before the Hamburg Obstetrical Society a woman of 35, with a syphilitic lesion of the portio and luetic metrorrhagia. The patient's husband had twelve years previously been infected and she had lived with him ten years. She was promptly cured of her symptoms with mercury.

Recasens⁵ reports six cases of syphilitic metritis with prompt relief from antiluetic remedies. One case suspected of malignancy came to hysterectomy. The microscope showed a hypertrophic, fungoid endometritis, with areas of endometrial cicatrices with peri-endarteritis and obliteration of vessels.

Hoffman,⁵ in 1911, reported a case of gumma of the endometrium. The case is of especial interest, as here demonstrations of the spirochete and the Wassermann reaction were made. The patient, two months after birth of twins, ran an apparent septic temperature for four weeks and died. Examination showed one centimeter under the urethral orifice a fatty, overlaid ulcer with irregular edges $\frac{1}{2}$ by $1\frac{1}{2}$ centimeters in extent. An ulcer the size of a pea appeared on the posterior commissure. On the anterior cervical lip was a tumor the size of a small apple with smooth, whitish, fatty, necrotic surface and sharply undermined and ulcerated edges. The uterus was much enlarged but freely movable and not sensitive. The right adnexa were enlarged and adhered; the left adnexa and parametrium were free. Microscopic section of the tumor showed gumma, autopsy revealed the entire endometrium involved. Underlying and extending into the musculature was a gummatous deposit one centimeter thick. The right ovary and tube had completely disappeared in a gummatous mass. The vulval ulcers were gummatous. In the liver, lungs and most internal organs gummata were found.

Added to such evidence of the prevalence of syphilis of the uterus is the determination of obstetricians that a considerable per cent of cases of rupture of the uterus is due to friability of the uterus from pre-existing syphilis. Given cases of such extreme uterine injury, it is reasonable to assume that infections of milder grades are relatively more common. The medical profession could readily overlook an enormous number of such infections, as we have almost no knowledge of them, they are unthought of as a caustive factor in gynecologic disorders, and the lesions are usually not accessible nor gross enough to attract the attention of clinicians or of microscopists.

As a conclusion from these considerations I would say that syphilis of the uterus is a relatively common disease and that at present all cases of obscure or stubborn endometritis, metrorrhagia, membranous dysmenorrhea, hematometra and atypical conditions of the cervix should be considered as possibly syphilitic and a Wassermann reaction secured. In the routine examination of women, and especially those of the demi-monde, I would urge that the cervical region be examined with more than ordinary care for evidences of primary syphilitic lesions.

Syphilis of the Ovaries and Tubes.

Less clinical data have been accumulated regarding syphilis of the ovaries and tubes than in case of the uterus. In connection with ovarian syphilis certain facts regarding infection of the testis, on account of similar embryologic origin and function, would seem significant. Clinically, we do not often see gumma of the testicles or epididymis, but the testicle is usually conceded to be the organ in the male most often microscopically altered by tertiary syphilis. Pathologists are accustomed as a routine to seek for the evidence of diffuse, interstitial orchitis at post-mortem and consider this sufficient evidence to protocol "tertiary syphilis."⁴ No adequate histologic evidence of ovarian change, in women giving a positive Wassermann, has yet been secured, to determine whether or not interstitial syphilitic oophoritis is common to the ovary.

In congenital syphilis the question has long been raised as to whether the sperm or ova or both were infected at the time of impregnation. One of the most notable advances of 1912 was the demonstration by Ulehuth and Mulzer, ⁶ that the sperm of men with florid syphilis, in which no spirochetes were demonstrable, by injection, gave syphilis to rabbits. The demonstration of infected ova is a far more difficult problem, not yet worked out. Paternal syphilis gives an infant mortality of 20%, while maternal syphilis gives an infant mortality of 85%, showing the spirochete invasion of the female internal genitalia to be early and intense.

Hennig⁵ reported a syphilitic case with ovarian enlargement which rapidly disappeared on the administration of mercury.

Lecorche⁵ has reported examining an ovary of a young syphilitic showing sclerosis, few Graaffian follicles and numerous cortical calcareous deposits. Bouchard and Lepine have described a case which showed the fallopian tubes filled with gummatous nodules the size of hazelnuts.

Laffont⁵ recently reported his work on adnexal syphilis, distinguishing several form of luetic salpingitis: (1) congestive, (2) catarrhal, (3) gummatous, (4) sclero-gummatous, (5) sclerotic, and (6) sclero-cystic. He emphasizes as an important symptom of syphilitic salpingitis a pain elicited by pressure on the arteries of the pelvis. He divides luetic oophoritis into (1) gummatous infiltration, (2) gumma, (3) sclerotic, and (4) sclero-cystic forms.

Up to 1905 there were reported but three undoubted cases of syphilitic salpingitis, when Watthieff⁷ published five others. With our present new methods of diagnosis and better understanding of the histology of syphilitic changes gynecologists need to get busy.

Closely connected with ovarian lues is the observance of syphilitic amenorrhea, of which Meirowski and Frankenstein^⑤ have given exact descriptions. In three females of menstrual age amenorrhea appeared after severe syphilis and continued six, eight and six years, respectively. In two women menstruation reappeared after specific treatment. In the third appeared menstrual pain and vicarious nose-bleed without hemorrhage from the genitals. The authors present two possibilities, either the amenorrhea was the result of constitutional depression and anemia due to syphilis, which was relieved by the medication, or there was a profound anatomic injury to the ovaries through syphilitic oophoritis.

Syphilis and female sterility is another phase of luetic oophoritis which requires careful clinical study.

I wish to call particular attention to that evidence of syphilitic disease of the internal female genitalia as demonstrated by the infecting power of their discharges. One reason why the primary sores of women are not seen as frequently as the same lesions in men, is that a large number of penile infections are contracted from women with no vulval, vaginal or cervical lesions, but through menstrual and leucorrheal discharges.

Muller^⑥ has recently published a case carefully worked out. A young **puellae publicae** was suspected of infecting men with syphilis and was repeatedly examined, but presented no luetic lesions or symptoms. Later her Wassermann reaction was shown to be positive and her leucorrheal and menstrual discharges contained the *Spirocheta pallida*. Ulehuth's demonstrations have shown that women may, by syphilitic semen, acquire a luetic endometritis as a primary lesion. All such complications, with which this subject abounds, can but serve to show how futile are most examinations of our **puellae publicae** and so dispute the view, long held, that women without sores and abrasions are free from infective power.

It was the primary object of this paper to present some cases in my practice bearing on these points, but on finding our English literature so absolutely barren, I have postponed my cases for further completion and future report in a paper of more technicality.

Regarding syphilis of the adnexa, it must be considered not very uncommon. I would urge a more careful histologic study of such organs removed from syphilitics, the securing of a Wassermann reaction in all cases of obscure sterility, amenorrhea and obscure adnexal tumors; also more thorough routine examination of leucorrheal and menstrual discharges for the *Spirochaeta pallida*. I wish to acknowledge my indebtedness to an article by Dr. P. Meyer of Berlin, noted in the bibliography, without which I could not have obtained many references to foreign literature.

Finally, if I have here shown the barrenness of our books and current literature on this subject, established the probability of the frequency of the disease, and shown the inactivity of American gyne-

cologists in this line, if I have pointed out the extent of the field, given you a resume of the work already accomplished, made plain the advantages of further information, and encouraged any to investigation and more complete text-book references to this important subject, my purpose is accomplished.

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THE GENERAL PRACTITIONER'S FIELD IN GYNECOLOGY.

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The perpetually swinging pendulum of progress has swung for gynecology in the past twenty years, from a minor specialty, or part of general practice, until it has reached the dignity of a major specialty, claiming the entire realm of abdominal surgery as a proper field by right of discovery and success. And one of the greatest surgeons of all these has said, but a couple of years ago: "It is time for this surgical revolution to end." Eminent specialists hand back a part, at least, to the general practitioner the simpler etiology, diagnosis and treatment toward the aim of extinction of disease and amelioration of suffering which is common to us all, for some cases must always be in the hands, first, of the general practitioner—for example, the torn perineum, curettage and incipient cancer.

The first part of every examination of any woman, consulting for treatments, is the Case Record, than which I have no more useful book, as a large part of such patients have other ailments than these peculiar to her sex; and a case record, before the examination and again afterwards, is essential for anyone doing gynecologic or any other kind of practice.

The reason for consultation from the patient's viewpoint may be classed almost in the order of frequency, as, abnormal discharges, irritation, as pruritus or pursing, malpositions, menstrual irregularities, pelvic pain, changes in size, sterility and headaches. Backache, we note in case records, is almost as frequent among men as women, and to say that it is due to kidney trouble in the former and uterine cause in the latter is a most fallacious reasoning.

The examination, with patient on proper gynecological table or chair, unrobed and covered as for an operation, hands and instruments sterilized, determines these conditions: If a discharge, whether it is

watery, bloody, purulent, muco-purulent, or muco-epithelial. If any inflammation, whether gonorrheal or otherwise, the microscope usually proving the otherwise. If any swellings, whether they are temporary or chronic, which might be relieved by surgery, if pain, the location of it, but extirpation for severe pain of coccyx has more often proved discreditable to surgery and failures (as to purpose) than otherwise.

Tumor symptoms are an oedema, hematoma, cyst, hernia, infiltration, stasis or inflammation. Malformations—adhesions or hermaphrodisism. Neoplasms—as condyloma, urethral caruncle, lipoma, fibroma, malignant growth. Condition of vaginal outlet and rectum. The ultimate treatment depends so much on the diagnosis made by the general practitioner, to whom the complaint is first made, that a very important part of his training should be the ability, first, to know the normal and then correctly to diagnose the abnormal, which depends, not on our lectures but what we learn to do from doing, and the power for a nicety of discrimination comes from the tactus eruditus of experience only, which in most cases exist in the fingers of the right hand, though both hands must be used.

With the patient on her back, using the foot-rests, the first part of the examination is palpation of the pelvic structures. If any suggestion of abnormal growths, sometimes Sims, or the knee-chest position, must also be assumed by the patient, and occasionally the examination is completed with the patient standing. Abdominal, vaginal and rectal palpation are all necessary for complete examination, and in virgins, without an anesthetic the abdominal, ocular and rectal are all that is necessary.

Next comes the speculum examination. By inspection we note the discharges, color and redundancy of the walls. The cervix uteri—position, color, size, shape, lacerations, deviation of line, eversion, erosion, hypertrophy, cysts, ulcer. External os—discharges, polypi and cysts. Relations of fundus to body axis are noted. If color of vagina is bright red, we diagnose—Congestion, due to inflammation or irritation. If pale or bluish, a venous congestion meaning interference of circulation by pregnancy, tumors, exudate or central from heart disease. When the walls of vagina collapse about the speculum, this is important to note in treating debilitated patients or those consulting for sterility.

As to the use of the sound for diagnosis, I rarely have use for it, and now much less frequently than in earlier years of practice. Crossen's rules for non-use of sounds covers every reason I have for not using it: "Do not sound unless there is some special reason for it. Do not sound if any suspicion of pregnancy. Do not sound if active inflammation of vagina or cervix or any salpingitis is present.

The hands, speculum, sound, stethoscope, curet and microscope and case record are the means most used in diagnosis, and it is to emphasize the importance of diagnosis that I discuss this topic.

With the case history, and other means of diagnosis, the general practitioner has determined the etiology, diagnosis, and must outline the treatment, whether surgical or non-surgical. It is an indifferent practitioner who allows his patient to select his own surgeon, and he who aims at his own fullest development loses the greatest opportunities who refers all operative cases to some one else. Every town of 3,000 or more should have its own Hospital Association, and refer only unusual cases to the surgeon-specialist.

A gynecologist has been considered as the successful operator for women's diseases, but the real gynecologist should be the one who treats most successfully women's diseases, being prepared to do that surgery most common in all practice with women, viz., fistula, appendicitis, hemorrhoids, ovarian cysts, or uterine fibroids, prolapse, etc. In leucorrhea patients, a common symptom, we find them obviously cachectic and anemic, with no particular discomfort in the pelvic organs, other than this discharge, and we know at once that a treatment to restore to general health will remove the disturbance.

But usually, after our case history is made, we will find at this time or confirmed after the examination, that leucorrhea is a resultant from one or the other of these causes, or concomitant symptom, viz:

(1) Constipation, (2) Gonorrhea will produce symptoms almost characteristic at first mention, such as vaginitis, cystitis, urethritis, (3) Ulcers, simple chancroidal, syphilitic, tubercular or malignant, of vulva, vagina or cervix—may cause the discharge and a salpinx may drain through uterus and cause discharges to issue from os uteri, (4) Bloody discharges make us examine for ulcer, lacerations, cancer, polypi, fibroids, functional congestion and miscarriage. Yellow discharges, if involving the urethra or Bartholin's glands, tell us, often before the microscope does, of the presence of the gonococcus. I have had several children of from five years to ten to treat for such trouble and invariably found it gonorrheal.

I have never yet had a case of tubercular ulcer of the vulva, but would recognize it with the aid of the microscope if presented in any case. The general practitioner who refers each case of woman's headache to pelvic troubles or charges all backache to disturbances of female organs, should recall Cabot's and Dereum's researches in which, of 2,327 cases of headache, not one woman had pelvic trouble to account for it, and of their 2,451 cases of backache not one had pelvic cause for it.

Whether the complaint be leucorrhea, as a symptom of inflammation or pain, there is a line of selective treatment to be employed, before prescribing operations; (a) Rest from work, or in bed, and from sexual activity, as the case demands; (b) Applications exteriorly to lower abdomen and massage. Heat, cold or counter irritants. Heat applied as stupes of salts or turpentine, pastes, poultices, or dry heat. Cold, as icebags, cold coil or cold sitz bath. Counter irritants as iodine, mustard, cantharides; (c) Applications as douches, solutions, powders, tablets, suppositories, tampons, pessaries and electricity; (d) Intrauterine; medicated applications within uterus, best in tablet form; hot water irrigation, elec-

tricity, within rectum of high or low enemata, or irrigation; (e) Postural treatments and internal medication, as laxatives, sedatives, tonics, serums, bacterins; (f) Diet and psycho-therapy, which must be an important factor in hysteria, or neurotic patients.

After leucorrhea, the most frequent complaint is menstrual disturbances. One of the first things for us to take into consideration is that 9 per cent of women are never regular, and that 19 per cent are regular after a certain period; and that the menopause, in my experience, dates from eighteen years (for nine years) to fifty-six years; that duration of monthly period should average the same from year to year in every woman, being in limits of one day to eight days. Any variation from the normal in duration or amount is more important to consider than variation of intervals, but the greatest complaint of women is dysmenorrhea. Sometimes the etiologic factor cannot be found, and we have to consider our patient as neurotic, and palliative treatments the only thing to be recommended. If a retrodisplacement is present, a Hodge, Smith or Thomas pessary often corrects the difficulty and should be given a trial. So long as the anterior end of the pessary is held stationary, the posterior will hold the posterior vaginal vault and attached cervix well back in the pelvis. For permanent relief of dysmenorrhea, the general practitioner sometimes makes the mistake of beginning the treatment of each case with dilation, before knowing that ovaries, fibroids or pelvic peritonitis might be a contributing cause, which dilation would not affect. Kelly reports of 255 consecutive cases of pelvic peritonitis, with adherent tubes and ovaries, tubercular peritonitis or hydrosalpinx and catarrhal salpinx, there were 180 having dysmenorrhea and 75 of the cases did not. He further advises using first the usual various remedial measures, then dilatation and curettage; but we must remember that the neurotic patient with dysmenorrhea and headaches needs the benefit of psycho-therapy, often, more than dilatation which acts as a placebo, perhaps.

If dilation as an operation is to help dysmenorrhea, the silver uterine wire stem pessary will correct equally well, making a minor procedure instead of one requiring the anaesthetic.

Case 1. (Jan. 20th). Mrs. N.—Aged forty-two, married twice, never pregnant, always regular. Was operated on ten years ago for retroversion and ventral fixation. Consulted for metrorrhagia lasting two months; had let it go on so long thinking it the "change" symptoms. Now, anemic, debilitated and unable to work, seeks help. At first visit she would not allow examination. Prescribed viburnum combination. Three days; no improvement. Insisted on examination. Case history and examination showed prolapse, first degree retroflexion, hemorrhage, subinvolution of uterus, but no history of pregnancy. Treatment: Replaced uterus, through rectal manipulation, fitted Thomas pessary, prescribed rest in bed, gave ergotin, strychn., sulf., belladonna, in addition to viburn. prun. and michellarepens, and iron tonic. Diagnosis: acute endometritis. Etiology—turpentine. Patient was teacher of paint-

ing, requiring daily handling of turpentine and since Thanksgiving had been busy. In three days patient well and later examination and reports remained well. Was result of operation effective until turpentine was used?

Case 2. Mrs. B.—Married three years, not regular before marriage. Since marriage more or less irregular, but always tried to regulate herself with calomel, 10 gr. each month or turpentine and sugar. Came consulting for pain in anterior vagina, and cellulitis the worst of its kind over pubic region. Pain at times excruciating. Examination showed uterus apparently normal, but bladder wall thickened and painful to touch, no urethral involvement. Diagnosis: Cystitis and cellulitis from too much self medication. Gave cystitis remedy for alkaline urine, which was tested, prescribed salts as laxative, and salts in solution as stupes over pubes. Edema reduced in twenty-four hours.

Case 3. Miss X.—Aged about thirty, transient in the city; intelligent and refined; had consulted another physician three months ago for chronic headaches, who explained them from "reflexes," as some disturbance of female organs. The menstruations were normal; examined, finding adherent prepuce and broke adhesions with applicator. For a while headaches improved, but consulted me for pain in region operated on. Examination showed hemorrhoid condition of prepuce, six or eight blood blisters. The external genitals were far from normal, parts undeveloped the same as an eight-year-old girl; no labia minora, no clitoris gland, and urethra open inside of vagina. Rectal examination seemed to disclose double uterus. Treatment: Lanced hemorrhoids, gave prescription for hepatic insufficiency as for any hemorrhoids, and treated locally with hot application of zinc sulph., etc., and witchhazel. Recovery of symptom complained of.

Case 4. Miss C.—Age twenty-seven; amenorrhea for two months, pelvic pain constant; headache; loss of flesh; anorexia. What did case history and examination prove?

Insufficient clothing for stylish effect caused lowering of resistance. A large mass in lower left quadrant might indicate several things, but a thorough purging and irrigation of bowels removed the mass and pelvic pain, cured headache and anorexia, though first examination made an operation seem imminent, and I report this case because she came to me after another physician had prescribed operation. The point I wish to make is to be sure of a reason for operating. The real gynecologist is one who treats women's diseases and refers on proper occasion to the surgeon, but better be able to do the surgery himself with co-operation of an equally efficient assistant, able to solve all emergencies, except rarest ones. Amenorrhea not cured, possibly pregnancy exists.

In prescribing for dysmenorrhea it is a little amusing to read from Kelly and other authors, of their consistency. For example, Kelly condemns Lydia Pinkham's, not because it is a proprietary, but because of the 20 per cent alcohol; then he says he often gives phenacetine, and two

teaspoonfuls of whiskey. Won't there be 20 per cent alcohol in this remedy? The best prescription for first consultation in which examination has not seemed essential has been for me this one: prescription, composed of macrot'y's pulsatilla, mitchella repens, passiflora, and rarely fails to relieve.

Like others who do much of any kind of work, I have my hobbies: First, I do not hesitate a moment for surgery in removal of neoplasms of any kind, or for curetage for adenomatous growths and incomplete miscarriage, but rarely for endometritis. I do give pessaries a fair trial when indicated, and I still use medicated tampons, though some authors condemn them as unsatisfactory for the uterus, with its extended arms of support, the tubes, enfolded, by the broad ligaments, lose tone and muscular vitality.

Women pay the price of civilization in their complaint of constipation, for one rarely has a patient with any pelvic complaint unaccompanied by constipation. I therefore require every patient to have a free daily bowel evacuation. One cannot make a clear diagnosis of many cases until bowels are cleaned.

In curetting another "notion," in using the tenaculum, is to bring the uterus down the smallest possible extent, rather than stretch the ligaments downward and pave the way for prolapsus. I think every general practitioner should have his office equipped for cleanly and proper gynecologic examinations and treatments, and if not doing surgery himself, be sure that surgery is necessary before calling on the specialist.

One thing I have found in practice, not mentioned as a causative factor of endometritis and menorrhagia, with coexistent malaria, proved by blood test, or rheumatism due to blood dyscrasia, the uterus has been poorly nourished, is enlarged, thickened walls and constantly leaking blood, not freely but continually. The use of glycerine tampons, hot douches of magnesium sulphate solution as depletants with a tonic of atropine as capillary check, and iron, arsenic and strychnine for blood, using the salicylates in some form if any uric acid manifestation, brings about satisfactory results. I have said little about gonorrhea, for if extended to tubes, operation will probably be the only course, if local zinc sulphate solution, potassium permanganate, or serums may cure.

No general practitioner should expect to accomplish anything in treating cancer, tumors, fibroids, or cystic conditions, with any other methods than surgery, but he should be as well equipped to do the surgery for the non-dangerous conditions and common ones as any gynecologist and the general surgeon is and should be as much of gynecological specialist as gynecologist. I do not want to be misunderstood. Gynecological specialists are essential, as the specialist in any line is more perfect in knowledge, detail and skill than a general practitioner can be, but when they pass their knowledge on to us, let us profit by it, and do the major part of our own surgery.

The general practitioner must know when surgery is the treatment, but his first duty is to the patient, namely in conservation of organs

with a maximum of comfort. Nicholas Senn was one of the first to condemn what was a few years since a common operation, ovariectomy, saying to remove all of a woman's ovaries for other than a malignant disease is a crime against woman. Resection of the ovary for lesions involving only a part of the ovary is the substitute of a large part of former ovariectomies.

Adhesions are removed when found, and small cysts, whose finding is usually incidental, punctured; larger ones also sutured. Of course, it is difficult to discover normal ovarian tissue in large ovarian cysts, though by finding the utero-ovarian ligament, the sound tissue is traced.

In conclusion, each general practitioner should seek by study and experience to be perfect in diagnosis and if not a surgeon, the prognosis as to the necessity of an operation, should be in his hands.

THE LAUGH OF A CHILD.

The laugh of the child will make the holiest day more sacred still. Strike with the hand of fire, O weird musician, thy harp strung with Apollo's golden hair, fill the vast cathedral aisles with symphonies sweet and dim, deft toucher of the organ keys; blow, bugler, blow, until thy silver notes do touch and kiss the moonlit waves, and charm the lovers wandering 'mid vineclad hills. But know your sweetest strains are discords all, compared with childhood's happy laugh—the laugh that fills the eyes with light and every heart with joy. O rippling river of laughter; thou art the blessed boundary line between the beasts and men, and every wayward wave of thine doth drown some fretful fiend of care. O laughter, rose-lipped daughter of Joy, there are dimples enough in thy cheeks to catch and hold and glorify all the tears of grief.—Robert G. Ingersoll.

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THIS IS THE OFFICIAL JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION. ALL COMMUNICATIONS SHOULD BE ADDRESSED TO THE JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION, BARNES BUILDING, MUSKOGEE, OKLAHOMA.

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Articles sent this Journal for publication and all those read at the annual meetings of the State Association are the sole property of this Journal. The Journal relies on each individual contributor's strict adherence to this well-known rule of medical journalism. In the event an article sent this Journal for publication is published before appearance in the Journal, the manuscript will be returned to the writer.

Failure to receive the Journal should call for immediate notification of the editor, 507 Barnes Building, Muskogee, Okla.

Local news of possible interest to the medical profession, notes on removals, changes in address, deaths and weddings will be gratefully received.

Advertising of articles, drugs or compounds not approved by the Council on Pharmacy of the A. M. A. will not be accepted.

Advertising rates will be supplied on application. It is suggested that wherever possible members of the State Association should patronize our advertisers in preference to others as a matter of fair reciprocity.

EDITORIAL**TO OFFICERS AND MEMBERS OF THE STATE ASSOCIATION.**

Following a necessary and pleasant custom of the past the Secretary takes this occasion to call the attention of members and officers of county medical societies comprising our association to the necessity for annual reorganization. Many societies have their work already mapped out for 1914, while others are lax in this respect.

It is earnestly desired that the county societies take some action with reference to the following matters:

Malpractice Defense. Malpractice suits are on the increase in this state and it stands us in hand to take some concerted action looking into their cause. It must be admitted that the practice of medicine, and especially surgery, out of which such suits often arise, is on a higher plane than ever before; then why should our members be worried with defending these suits? The writer believes that in nearly every instance investigation of these suits will disclose that some ignorant, jealous or unprofessional physician is the root of the evil. In one county, in a year, five such suits were brought, due to the gross ignorance of one

physician and his desire to embarrass a rival. This matter is of itself sufficient importance for the various societies to give it their close attention and suggest a remedy.

The Medicines Physicians Use. In this matter only one thing will bring about an intelligent uniformity, and that is a consideration of the drugs we are using and their usefulness. It is especially desired that we take some action with reference to the advertising carried by many medical journals coming to our desks, whose pages reek with nostrum advertising. It is not necessary to call the attention of the thinking physician to this matter, but it is necessary to refresh the minds of some of our members occasionally on the harm and uselessness of many of the drugs we are daily called on to use through the medium of cheap mail service or the mercenary pages of medical journals conducted for profit alone and whose sole object is to exploit our thoughtlessness and ignorance for the cash they may secure. At least one meeting should be set aside for a thorough discussion of the matter.

The Fiscal Year and the Prompt Payment of Dues. Throughout the country, county societies are adopting the plan recommended by the National Meeting of the State Secretaries in October, 1912, which in substance recommended that we make our fiscal year conform to the calendar year in fact as well as in theory. To do this it will be necessary to have all membership promptly lapse with the end of the year and to be renewed immediately, instead of at random, as has been the custom in the past. The prompt renewal of membership the first of the year shows a business attitude and system which the physician should cultivate more closely.

Jurisdiction Over Non-Resident Members. We should adopt some plan or amendment to the constitution and by-laws conferring jurisdiction to the society wherever a member may be, and by the same rule should have power to consider the actions of any physician, member of a foreign society who may come among us. The necessity for this may be readily seen in the plight of a county society who has in its midst a member of some foreign society. This member may have left his old location with a good standing, yet be grossly derelict in his acts in his new location and be beyond reach by any disciplinary means. This amendment should contemplate the abrupt termination of membership in the old location and the automatic enrollment of the member in his new location. This is a mooted question among state secretaries; however, the writer believes that it is the only solution to the vexing dilemmas we often find ourselves in in this respect. It seems this could hardly do harm and would do much toward making the new man quickly acquainted with the profession in his new location and making him one of them.

General Revision of Our Present System. That we should have a general rewriting of our laws is evident to any one who reads them and attempts to apply them to existing conditions. States have a readjust-

ment by general law (codification) every ten years; ours are now more than ten years old and we are still laboring under the handicap of using them and fail to accomplish what we wish because they do not apply to the times.

County Secretaries are requested to promptly make remittances for their membership and to make a clear report of all officers elected or holdovers. The greatest care should be used in making reports, as many misunderstandings will be avoided by a clearly written report, showing the distinct initial, name and address of the member being remitted for. Secretaries are requested to give this matter more than a perfunctory notice.

The Individual Member is requested to pay his dues promptly and save the secretary the unwarranted task of having to call, often more than once, for them. The county secretary is an unappreciated jewel. If you do not think so, just try getting a message to fifteen or fifty physicians even by telephone and see the state of your patience when you are through with the task. Call some physician up on what you consider a matter of importance, just as much to him as yourself, have him give you a flippanant answer, or, worse still, tell you a long story of how "terribly busy he is; just has not possible time to give the matter attention," or that he does not favor a certain "element in the society that wants to run things to suit itself," then you will understand why Burns wrote his lines when he saw the louse.

Christmas is drawing near; let's put a little advance Good Cheer on the face of our local universe. Let's adopt the doctrine of the Golden Rule, the principle of "Give and Take." If we could only in good faith temper our dislike for some of our fellow practitioners, and he could only do a little of the same, we would look much better to one another than we do.

The body of our profession is essentially of vast importance to all the people. Few individuals realize the place we occupy with reference to our citizenship. It was once said that "Civilized man could do without this and that . . . but he could not do without cooks." A truer saying would have the last word read "doctors," for it cannot be gainsaid that immeasurable woe would result without the steady hand and mind of the physician. So let's be up to the task and make it a part of our individual creed to take our rightful place as the directors and advisors of the people for whom we are in a measure responsible. The physician has a right due him by reason of the unpaid and unappreciated hardships he constantly undergoes to demand and take a commanding place among all men and no longer allow the responsibility of the direction of the affairs of men to lie in the hands of the ignorant, designing and self-seeking politician.

We have grown fetters on our hands by long usage and custom which should be shaken off. The physician certainly knows the needs of the people better than the shyster lawyer who breaks into the legislature;

certainly better than the ignorant farmer, so often a potent force in shaping the affairs of legislation. Why should we not apply the knowledge gained by observation of human suffering? We know collectively how much misery may be avoided, yet when we apply, like supplicants for relief, these same ignoramuses meet us with uncouth argument and such miserable consideration that we feel like never taking interest in the matter again. These unnatural conditions should be given your best thought. We have the solution with us; its application and results, like all reforms, will be slow, but it is up to us.

A DIFFERENCE OF OPINION.

Judge Galbraith, of Division Number 2, Oklahoma Supreme Court, does not interpret the law as does Justice Garrison of New Jersey. Recently a decision was handed down by Judge Galbraith sustaining a verdict in favor of Miss Inex Strain, a telephone girl of Oklahoma City, against Dr. J. B. Rolater, Oklahoma City. Miss Strain alleged that she employed Dr. Rolater to treat an infected toe, but not to remove any bone (certainly a remarkable agreement between patient and surgeon); that he removed a sesamoid bone and therefore damaged her. We are not advised of the defense in this case, but presume that a general defense was made that the removal was necessary and that otherwise an operation in the case would do no good. In the New Jersey case the Justice took the sensible view that even if the surgeon did operate more extensively than was agreed or contemplated originally, the circumstances would warrant such operation if it were shown that the work done was warranted by the conditions present. A surgeon should certainly not be held for assault and battery who starts out to do an operation with one operation in view and, then on placing the patient under an anesthetic or opening the parts, discovers something radically different, but requiring removal in order not to leave the patient in the condition for which operation was sought. Which horn of a dilemma is a surgeon to take, for instance, in the following case: He is employed to do an appendectomy by a woman. After she is anesthetised and section is made he discovers a tuberculous ovary and removes it. She may say he operated beyond agreement and prior contemplation and demand damages. On the other hand, we will assume that he fears just such an outcome and, not having her permission to remove anything but an appendix, he closes the abdomen and allows her to recover from the anesthesia. We all know that he has not done what common sense and general usage dictates he should do under the circumstances. Perhaps it would be well for the surgeon in all cases to demand the right to do whatever he "thinks best with the conditions in view," to remove or leave whatever he thinks should be, and otherwise not take the case. The writer recalls once holding a patient with a foot mangled beyond recognition, for a considerable time, until he agreed to submit to amputation, if after he was under anesthesia it should be found the foot could not be saved or the attempt to save it would

seriously imperil the patient's life. Under no other conditions should we accept the work. A lawyer might just as well be held for malpractice on the conviction of a client who he started out originally to defend for murder on the plea of self-defense and then after entering trial changed his plea to a plea of insanity.

THE RETORT COURTEOUS.

In the September issue of *The Journal* the editor took occasion to commend the policy of *The Journal of the Southern Medical Association* with reference to the refusal of advertising not acceptable to the Council on Pharmacy and Chemistry of the A. M. A., by reason of such advertising carrying false claims to the medical profession. In the October Journal the Editor attempted to draw a "contrast in medical journalism" by citation of the number of advertisements carried by *The Medical Journal*, which from time to time have been measured by experts and found wanting, and cited the fact that more than fifty of them had been either condemned by the Council or found wanting in various degrees.

We have the answer to our temerity in the November *Herald*. In that issue we have, along with *The Western Medical Review*, been highly noticed with a page cartoon, representing our editorial dignity more or less "on our back," so to speak.

No real man loves a contest more than when he is right; every real man loves a contest when he is right and the other fellow is wrong, and on that hypothesis we accept the challenge and propose a defense. The cartoon bears the insignia of Dr. S. G. B. We presume that means that our esteemed friend, Dr. S. Grover Burnett, is the perpetrator of this onslaught—in fact, he modestly admits that his brain evolved the cartoon which attempts to imply that our editorial thoughts are inspired by Dr. George H. Simmons, Editor of the Journal of the A. M. A. Well, we wish Simmons was our sponsor, for knowing Simmons is to know that he is always ready to defend the vast interests of the physician and that his sole ambition is to make of American Medicine the strong body for right that it should be and is today. We know that no personal grudge animates his actions, several low-grade advertising sheets to the contrary; we know that the acts of the Council are impersonal and based only on facts after a close investigation of the merits of each individual case. We believe that the American profession has a right to designate this body of experts to investigate the claims of those who would have us use their products and that when they speak their verdict is that of science and HONESTY. We regret to say, however, that Simmons was not consulted in this matter. We do not recall that we have ever heard him mention either of the gentlemen who issue the *Herald* in all its glory, once monthly, by reason of the cash poured into its coffers by the houses of Antiphlogistine, Anasarcin, Hayden's V. C., Tongaline, et al., and we certainly never asked Simmons what to do about it.

The advertising pages of the *Herald* are inspiration themselves for a protest from every physician who stops to think about them. We doubt if the various organizations which the *Herald* claims to be the "official" of have ever given a thought to the shoddy preparations and frauds exploited by that publication, else they would "out D——d spot" immediately with the whole performance. No cartoon or personal allusion will deter any honest thinking editor from expressing himself on such publications. There is no excuse for carrying such advertising matter in a medical journal except the excuse of the gambler and charlatan—"we need the money." No physician wants any of the vile stuff carried in its pages left in his office and the usual fate of it from the hands of the intelligent physician is a trip to the waste basket or sewer. Our only remedy is to suggest a little thought on the part of the physician, if he thinks, he will not support such nonsense either by patronizing such a journal by using its fraudulent compounds or allowing his name to appear at its masthead.

RECENT OPINIONS ON THE TREATMENT OF ACQUIRED AND HEREDITARY SYPHILIS.

During the last two years salvarsan and its successor, neosalvarsan, have been too much discussed drugs. Naturally in the initiation of a remedy so widely used as they have been, used with the greatest care and the greatest carelessness, we would expect some diversity of opinion as to their usefulness, but it is doubtful if ever a drug has been so suddenly and universally adopted and so many good reports follow its intelligent use. It must be admitted that much of the criticism, and there is little of that considering its wide use, is based on its use in an improper manner, either in the preparation of dosage, administration or lack of proper follow-up treatment with more of it or some other anti-syphilitic. From the first Ehrlich has advised repetition of the dose, which advice has been in many cases neglected by the attendant or often the patient by reason of his sudden and vast improvement comparatively.

L. Emmett Holt and Alan Brown, in the American Journal Diseases of Children, conclude that immediate and striking results follow the injection of the drug in children, many of whom have previously been treated unavailingly with mercurials; that it should be given intravenously: that a single dose does not cure; but often removes visible symptoms and that relapses are to be expected if the dose is not repeated and that they deem it advisable often to repeat the injection at yearly intervals even if there is no evidence of the disease. That the best results are obtained by early use of the drug followed by mercurials and that it is difficult to pronounce a cure in hereditary cases despite the Wassermann reaction. These conclusions may also be applied to the treatment of initial cases in adults. The brilliant results often seen after one administration should not mislead the physician or patient as to continuation of treatment, for often after a treatment a negative Wassermann will be obtained which may soon be fol-

lowed by a positive showing reassertion of the infection. The conclusions of some observers now indicate that the best procedure is to administer the drug intravenously at weekly intervals and follow with mercurials hypodermically for a variable length of time, depending on the individual case.

Joseph Collins, in a strong article recently in the Journal of the A. M. A., protests against the use of potassium iodide indiscriminately in the after treatment of these cases and counsels strongly against its routine use. His protest must be given attention and regarded seriously. His principal idea is that the iodides produce superficial results only and that we forget the underlying condition which years later crops out to plague us.

A SUGGESTION TO OKLAHOMA AGRICULTURALISTS.

The State Agricultural Department has been doing some good work in getting rid of certain insect pests ruinous to the wheat crop by infecting a few of the bugs with some virulent infection which is said to destroy the pests in such immense numbers that they are no longer a menace by their destructiveness. The plan was used with more or less success by Dr. J. L. Kendall, Superintendent of the State Home for Feeble Minded Children, on the home farm near Enid. Now that the farmers have begun to apply some of the same rules and principles on which well-grounded therapeutics is based, may we not expect the field to soon be entered by cults who, after thinking over the matter for a day or week, will originate some other system setting at naught the work of scientists in this matter? We need not be surprised to hear of the entry into the Western part of the state of Dr. John Bosh, "a highly successful practitioner in the science of bug eradication by the art of adjustment." Why could not the farmers hold an institute and invite Mrs. Dehlah Van Swat Highbrow to deliver an address on the effect of mind over matter and its application to the removal of the Texas tick from our bovine midst; or just think of a delegation down at Oklahoma City representing a new thought school having in view the passage of an act creating a board to examine and license the users of their system, sagely demonstrating its value to our intellectual legislators. We have distinctly in mind the visit of one of the Chiropractic Craft to the legislature and the enthusiasm he there created on stating that his system was good for certain run-down conditions of the members. So applying the rule of results, we cannot but assume that such proposals would fall on fertile soil if made to the agricultural contingent, always strong for the farmer and his interests and that the proposals to destroy pests destructive to our agricultural interests by simply wiggling their spinal column would be just about the proper thing in the minds of some of them. We know for instance that quinine destroys the malarial plasmodium wherever they have a meeting; that salvarsan destroys the spirochaeta pallida in like manner; the Osteopath knows, or claims to, that they do not: let him kill the boll weevil with his system. Suppose we

allow the "mind over matter sister" try her hand on the Kansas grasshopper! The Kansas farmer allows her to dally with the lives of his children; why should she not enlarge the sphere of her activity, and save (?) the crops?

The writer personally knows of an instance where a supposedly intelligent lady drove through the country for five miles in order to telegraph for an "absent treatment" for her husband's headache. Why not have the farmer roll out of bed some bright morning, run to the telephone and call up the healer and order an absent treatment for the bugs that are playing havoc with his cotton?

These suggestions could be continued indefinitely, but we have here enough to convey the idea and will leave the rest to the imagination of our readers.

PERSONAL AND GENERAL NEWS

Dr. R. A. Douglas, Collinsville, who attended the Chicago meeting of Railway Surgeons, was elected one of the vice presidents.

Dr. J. Q. Newell, formerly a practitioner of this state, an ex-Senator and member of the Legislative Committee of the Association since its creation under its present plan, has been appointed United States Marshal for the Western District of Oklahoma. The medical profession of the state join in general congratulations to the doctor on this deserved honor.

Dr. Chas. L. Reeder, of Tulsa, an ex-president of the Association, was recently made a 33rd degree Mason—one of the few men in Oklahoma ever so honored.

Physicians of Durant, it is said, have recently perfected arrangements for the construction of a hospital at that point.

Dr. Frank Moreland of Idabel and Miss Ophelia Saunders were recently married at Idabel and spent their honeymoon in Georgia.

Dr. Fowler Border of Mangum took in the Chicago meeting of Clinical Surgeons.

Dr. W. H. Rutland, wife and daughter of Altus, recently visited in Tennessee and Mississippi, Dr. Rutland attending a meeting of eye, ear, nose and throat men in Chattanooga.

Dr. Ross Hulen has removed from Pond Creek to Jefferson.

Dr. J. B. Rolater of Oklahoma City, who recently underwent an operation for appendicitis, passed the ordeal successfully and is doing well.

Dr. T. B. Hinson of Thomas is spending some time in Chicago doing post-graduate work.

Dr. Philip Herod, Alva, recently attended the Congress of Clinical Surgeons in Chicago.

Dr. J. D. Batson of Marietta has moved from that place to Oklahoma City.

Clinical Congress of Surgeons. Among many names noted attending this meeting are Drs. Lea A. Riley, A. N. Dixon, F. A. Davis, Oklahoma City; L. H. Huffman, Hobart; C. R. Hume, Anadarko; J. A. Hatchett, El Reno; J. H. Barnes, Enid; McLain Rogers, Clinton; A. B. Cullom, Hennessey.

Dr. A. L. Hatcher has moved from Texola to Norman.

Dr. H. C. Childs, Noble, will take an extended trip to New Orleans for the purpose of study. Dr. Noble expects to remain a year.

Drs. L. A. Newton and C. B. Barker, Guthrie, have been appointed by the Board of Education of that place to examine school children.

Tuberculosis Organization. There was recently organized in Oklahoma City, the first organization being temporary only, a body that will do the state great good if the proper co-operation can be secured. The organization is organized from a nucleus previously organized several years ago, but which has been more or less inactive. It is proposed to make a close campaign for the purpose of interesting all agencies in the prevention and treatment of tuberculosis. The following officers were elected to serve until a permanent organization is effected: President, Dr. C. R. Day; Executive Secretary-Treasurer, Dr. R. H. Riley, Oklahoma City; Trustees, Professor Turley and Dr. Gayfree Ellison, Norman; R. H. Riley, C. R. Day and J. C. Mahr, Oklahoma City. Dr. H. M. Carrick of Dallas, Texas, editorially connected with Holland's Magazine, and a past health officer of note in that state, was present and rendered aid by his valuable suggestions.

Drs. D. Armstrong, Mead, and John A. Haynie, Aylesworth, are spending six weeks in the Clinics of New York City.

The following Oklahoma City people attended the Chicago meeting of Clinical Surgeons: Dr. S. R. Cunningham, Dr. and Mrs. John W. Riley, Dr. and Mrs. E. S. Ferguson, Drs. Walter W. Ellis, Horace Reed, J. S. Hartford, E. F. Davis, D. D. McHenry, W. E. Dicken and A. L. Blesh.

Marshall County Medical Society held a meeting October 28th at Madill. Papers were read and discussed by Drs. Davis and Lewis, Kingston, Haynie of Aylesworth; Holland, Bray, Blaylock, Gaston and Robinson of Madill; Bolt of Woodville; W. D. Haynie of Powell, and Collins of Linn.

Sequoyah County Medical Society held a meeting in Sallisaw recently in which the physicians' wives sprung a surprise on the body by serving them with a supper. The affair was unique in that the food was served from shingles.

Seventh Councillor District Society held a meeting in Muskogee, October 28th. The following program was rendered: A General Clinic, by different physicians; "Pellagra, Paper and Clinic," J. C. Watkins, Checotah; "Clinic on Tuberculous Elbow," Harry Breese, Henryetta; "Abdominal Pregnancy, Case Report," V. Berry, Okmulgee; "Hematogenous Infections of the Kidney," C. C. Conover, Kansas City; "Aneurysm of the Aorta," Benjamin Brown, Muskogee; "Chronic Middle Ear Suppuration," C. M. Fullenwider, Muskogee; "Dietetics," O. C. Klass, Muskogee.

Pittsburg County Society on October 28th passed the following resolutions:

Whereas, Dr. E. N. Allen, one of the most valued of our members, is leaving McAlester to locate in Little Rock, Arkansas;

Resolved, That we extend to him our appreciation of his labors with us in the past, and our earnest wishes for his success in his new location.

Resolved, That this society elect Dr. Allen an honorary member of this society, with the privileges of an active member.

Resolved, That a copy of these resolutions be presented to Dr. Allen and a copy be mailed to the official State Journal for publication.

LE ROY LONG.

Resolution adopted by unanimous vote of the Pittsburg County Medical Society.

ED D. JAMES, President.

JAMES C. JOHNSTON,

Vice-Pres. and Acting Secretary.

Dr. Andrew L. Fulton of Kansas City is dead. Dr. Fulton's death will be regretted by scores of the "boys" he taught in years past. Probably no teacher in Kansas City ever endeared himself to his students as did Dr. Fulton. A man of sterling honesty and simple ways, he could readily appreciate the viewpoint of the student and he used many little ways to make life easier for them. Theodore Roosevelt is credited with the creation of his "Big Stick," but those who remember Dr. Fulton will recall that one of his pet expressions was to threaten to get his "big stick" if he ever heard of the boys doing certain things savoring of foolishness in treatment of certain conditions. His death brings sincere sorrow to a large circle of friends.

KANSAS CHIROPRACTIC LAW INEFFECTIVE.

Governor Hodges of Kansas has refused to appoint a Board of Examiners in compliance with the law recently passed by the Legislature of that State. The Attorney General of Kansas pointed out that the law as enacted was in direct conflict with the medical laws now in force and that any act committed by a chiropractic practitioner in the matter of treating the sick would be a violation of the law, so the people of Kansas will not be troubled, at least by legal sanction, with these "made-while-you-wait" healers for the time being.

WHAT OSLER DID SAY.

Much has been written in the medical and lay press of Dr. Osler's views on vaccination, of the much considerable has been made to carry the idea that he himself doubted its efficacy. We have never been able to seriously entertain such a possibility, but not having the address from which the idea had its origin we were unable to determine whether or not the pros or cons were right. One of our exchanges has lately published Dr. Osler's statement of his views on the subject, and the statement is so decisive that it is entirely proper to pass it on. He says:

"I do not see how anyone who has gone through epidemics as I have, or who is familiar with the history of the subject, and who has any capacity left for clear judgment, can doubt its value. Some months ago I was twitted by the editor of the Journal of the Anti-Vaccination League for a 'curious silence' on this subject. I would like to issue a Mount Carmel-like challenge to any ten unvaccinated priests of Baal. I will go into the next severe epidemic with ten selected vaccinated persons and ten selected unvaccinated persons—I should prefer to choose the latter—three members of parliament, three anti-vaccination doctors, if they could be found, and four anti-vaccination propagandists. And I make this promise—neither to jeer nor jibe when they catch the disease, but to look after them as brothers, and for the four or five who are certain to die I will try to arrange the funerals with all the pomp and ceremony of an anti-vaccination demonstration.'"—Medical Fortnightly.

THE ALLEGED DECISION AGAINST THE AMERICAN MEDICAL ASSOCIATION.

There have appeared recently in the public press and in a number of medical journals interviews and letters purporting to have emanated from Dr. G. Frank Lydston, in which it is claimed that he had won a very important decision in the Appellate Court against the American Medical Association; that the American Medical Association was, and has been, acting illegally for several years; that the trustees are illegally holding office and that all of the acts which have been done by the trustees are illegal. As these statements are untrue, the Board of Trustees, at its meeting November 7, 1913, authorized that the facts be published for the information of those members of the Association who are not familiar with them.

As is well known, for a long time Dr. Lydston has carried on a wordy warfare against the association and its officers. We are informed that for several months prior to January, 1911, he and his attorney endeavored to induce the state's attorney of Cook County to file a petition for a mandamus against the trustees of the association, claiming that they were illegally elected. The state's attorney, after investigating the subject, decided that there was no case against the association and declined to bring the suit. The matter was then taken to the attorney-general of the State of Illinois, who likewise declined to bring the suit.

January 5, 1911, he filed a petition in the Circuit Court of Cook County against the state's attorney of that county praying that the latter be compelled to commence an action of mandamus against the trustees and the association. To this petition the state's attorney filed a demurrer, which in legal effect is making an issue on the petition as filed to the effect that granting all that is stated in the petition to be true, there is yet no cause of action. No proof or evidence of any kind is offered or received on such an issue. A lengthy hearing was had on the demurrer, and the judge sustained the same and dismissed the petition. From that decision an appeal was prayed but was not perfected.

April 28, 1911, a new petition was filed against the state's attorney, which petition was more elaborately drawn than the first one, and again the state's attorney filed a demurrer to the same. Another lengthy hearing was had on this demurrer, and again the judge sustained the demurrer and dismissed the appeal. An appeal was perfected to the Appellate Court, which court consists of three judges sitting as a reviewing court. Arguments were made in that court, and on October 9, 1913, by a divided court, the finding of the judges below was reversed by the opinion of two judges, one judge dissenting. From this decision an appeal has been prayed by the state's attorney and allowed to the Supreme Court of Illinois, where the cause is now pending.

As will be seen, the decision does not in any way affect the American Medical Association, but relates entirely to the duties of the state's attorney. Should the Supreme Court sustain the decision of the Appellate Court all it would mean would be that the state's attorney would have to bring quo warranto proceedings against the American Medical Association. Then, and not till then, would the American Medical Association be technically concerned, and not until then would the question come up as to the association's method of transacting its business. It will be seen that the statements and inferences contained in the interviews and articles above mentioned, that Dr. Lydston had won a great decision over the American Medical Association, is without foundation in fact.

There has never been the slightest doubt or question on the part of counsel but that every act of the association has been perfectly legal, and in every way in conformity with the statute of the state and decisions of the courts.

THE BOARD OF TRUSTEES OF THE AMERICAN MEDICAL ASSOCIATION,

By W. T. COUNCILMAN, Chairman.
M. L. HARRIS, Secretary.

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YOUR ATTENTION.

In this issue appears an article from the pen of Dr. Chas. W. Fisk of Kingfisher, dealing at length with the principles lately enunciated by editorials in the JOURNAL. Reference is here made to those dealing with the activity of the Council on Pharmacy and Chemistry of the A. M. A. We believe it will be good for every physician in Oklahoma to read this article and ponder on the facts set forth.

PROSTITUTION.

In this issue is printed part of the discussion which took place at the meeting of the Society held October 21. All recognized the evils of prostitution, but considerable difference of opinion was expressed as to the best present method of attacking it. Naturally most of the discussion centered on the prevention of venereal disease.

Physicians have a two-fold duty in the premises. First: **Noblesse Oblige**, as the best all-around educated men in the community the public is right in demanding that we contribute toward the settlement of the vice problem. Our peculiar relationship to individuals and families and institutions coupled with the sum of our routine work all going to make up what we call our "experience," all tend to make our advice and help valuable and to the point. Second: We appreciate the ravages of venereal disease which depends on prostitution, public or private, for its persistence.

Failure has resulted from all efforts to handle the social evil in the past. But that is no reason why we should not keep at it. All attempts to find cures for tuberculosis and cancer have been failures, but we have not given up the effort. We have still gone on doing our best to find ways of preventing these diseases and are treating the individual cases according to our light and with the best means at hand.

A lack of the due sense of proportion or a tendency to overrefinement in diagnosis and treatment or undue magnification of unessential details is a fatal quality in a physician; this habit has put the courts and the legal profession on the defensive and has contributed to the present inefficiency of the church. So the important thing in handling the vice problem is to keep eyes on the main purpose and do the common-sense thing-at-hand for the present and individual situation.

Segregation has been much discussed. It has nothing essential to do with the settlement of the problem. It is a detail in the handling of present evil; it has little influence on the ultimate outcome. Medical inspection likewise is a detail and in nowise concerns the result. The only thing to ask of these and other details is, do they hew to the line of common sense? Are they practical?

As to the end results, considerable of our social and business habits must be corrected. Better housing, better wages, child labor, care of delinquents, mental and moral, white slavery, and so on down the list with which we are all so familiar.

Probably the one single effort that will do most toward the ultimate settlement of commercialized vice is the suppression of the liquor traffic. The liquor business has a dual relationship with prostitution. First with the individual; a few drinks are generally mixed up with a youth's first visit to a house and booze is generally mixed up with the subsequent making of habitues of either sex. It is said that when the police forbid the sale of liquors in the houses of Kansas City the number of houses fell off one-third.

Just as bad as this is the community of interest which joins the brewery and the saloon and the brothel. These interests are political and social and financial. The "grapevine" which stretches up through from the underworld to the high places of the community is largely made efficient by the influence of the liquor interest. Men have been astounded at the influence which an ordinary pimp has been able to command.

So that when John Barleycorn ascends the scaffold and hears his fateful "23," his hand-maiden, commercialized vice, will lose a very efficient protector.—Bulletin Jackson County Medical Society, Nov. 8, 1913.

DAMAGED GOODS—AND FOLLY.

Brieux's great play, "Damaged Goods," that most remarkable play-picture of the danger to the innocent from syphilitic infection, had quite a run at a New York theater and then went on the road, showing at various of the smaller cities. The power and force of Brieux's plays cannot be ignored by any thinking person, and of them "Damaged Goods" has the greatest value as an instructive lesson to the layman, more especially to the "female of his species." Two curious incidents are to be noted in this connection. A clergyman in San Francisco wrote an article for a daily paper in which he expressed his profound approval of the play, and of its lesson, but stated that the stage would have to preach such sermons to the public; that he could not do so from the pulpit. Now, that is curiously interesting. Why cannot the pulpit speak the truth concerning syphilis or anything else that is of the utmost importance to the health and the happiness of the congregation? Must the pulpit confine itself to mythical rewards and punishments and ignore material punishments, like syphilis? What is the reason that the minister may not say such things—but the actor may? It would be interesting to know the real reason for the clergyman's statement that his lips are sealed; that he cannot preach such a sermon to his flock. If it is that he has not the words or the thoughts, he might at least read the play to his congregation. The other suggestive incident is that of the ceremonial burning of Brieux's book, "Three Plays," by the members of a certain women's club in San Francisco, because it was "dirty." How is one to protect people who think it is dirty to show them their danger and how much they need protection? The ostrich burying his head in the sand is a monument of wisdom in comparison to a lot of silly women burning a book that has, for them of all people, a message of the profoundest importance. If it were not so painfully indicative of hopeless stupidity it would be amusing.—California State Journal.

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C. R. Day, Security Building, Oklahoma City, 1913.
John W. Duke, Guthrie, Oklahoma, 1913-14-15.

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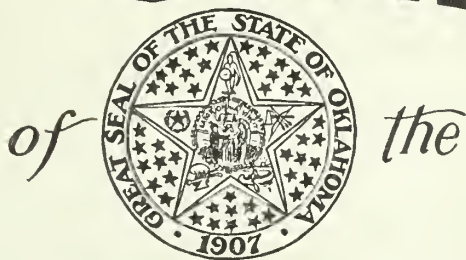
Next meeting Oklahoma City, January, 1914.

Address all communications to the Secretary, Dr. J. W. Duke.

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No. 8

DR. CLAUDE A. THOMPSON, EDITOR-IN-CHIEF.

***A LITTLE PERSONAL EXPERIENCE WITH HOLMES' NASO-PHARYNGOSCOPE.**

Dr. D. D. McHenry, Oklahoma City, Okla.

In 1911, when Dr. E. R. Holmes of Boston first wrote his papers on the use of his naso-pharyngoscope, I was interested. He reported some progress in a class of cases I had been able to give but little help.

In September, 1912, I went to Boston and spent a week with him in his clinic to see him work, to learn his technic, and this small paper is not to offer anything new but to emphasize the work he is doing by giving you a little of my experience with his instrument.

He first experimented with a female cystoscope, and out of that beginning evolved his naso-pharyngoscope. Beck and Hayes have each put an instrument on the market. I know nothing of the former. The latter is used through the mouth, and gives a good image, but from a pharyngeal angle.

The Holmes instrument is used through the nose and gives a direct view of the naso-pharynx. It gives an inverted image, but a very clear and distinct one.

Wampler, whom you will remember patented an appliance to make erect the inverted images in cystoscopes, has made a modified Holmes naso-pharyngoscope and used the same appliance on it. It gives an erect image not quite so large and distinct a picture as the Holmes instrument, but large enough for practical purposes. It has the added advantages of having a cooler lamp that will not become warm enough to burn or even be uncomfortable, and having an erect instead of inverted image by which to operate. Its disadvantages are, that the window is slightly farther from the end than the new Holmes just made by Thomas, and to date the eye piece is larger and so more in the way in operating.

**Read before Section on Eye, Ear, Nose and Throat, Oklahoma State Medical Association, Enid, 1913.*

I have the Wampler instrument and operate it with one dry cell, also have used the one lamp since I purchased it seven months ago.

The technique of using it is very simple. A 2% cocaine solution is passed in on the floor of the nose, more to prevent tickling than pain. The instrument is passed directly through the nose into the naso-pharynx, and will go into any nose in which you can pass a eustachian catheter. I have many times passed it under or over a spur. I have used it in children as young as five years of age, but of course young children must be dutiful, not afraid, and you have their confidence.

With the instrument you can get a good view of all the naso-pharynx; be able to see for some distance into the mouths of eustachian tubes, get an excellent view of fossae of Rosemüller and see any adenoid or remnant of adenoid tissue, and see the condition of the posterior ends of middle and inferior turbinates. In half of my cases I could see the opening into the sphenoid sinus. The manufacturers say you can see into the larynx in a percentage of cases. I have not tried in all my cases, but have never been able to see it in the ones I did try.

I have examined practically all of my ear cases with it the past six months and most of my nasal cases. I know but little about the pathology as yet, for Dr. Holmes very aptly says: "There are as many and marked variations in size and shape of the eustachian tubes as there are in the structures of the nose or in other parts of the body." I will tire you with the details of but a few of these cases.

One of the first things Dr. Holmes told me was that the use of the instrument would make me ashamed of some of the work I had been doing. I thought when I had a child under an anaesthetic and got through with my work on his naso-pharynx with my Brandegee forceps, Stubb's curette, and finger wound with gauze, there could not possibly be any adenoid tissue left. In examining some of these cases later I found the fossae of Rosemüller nearly full of adenoid tissue. I thought the trouble was with me, but when I had examined cases done by my colleagues both in Oklahoma City and other places in the state, and Kansas City and St. Louis, I find they have not been doing any better work than I.

I also thought I could discover any adenoid tissue in the vault with the pharyngeal mirror, but find that I had missed much of it, and Holmes has very aptly said, "Adenoid tissue in the adult is much more frequently extensive in amount and a source of trouble to the tubes than is indicated by the post nasal mirror."

The following case will illustrate both points: Mrs. X., a physician's wife, came to me early in 1912 with an acute tubo-tympanic catarrh. Had had an incomplete tonsillectomy, drums retracted, tubes partly closed, slight defect of hearing, and a very bad deflection of the septum. With the pharyngeal mirror I failed to find any adenoids which the husband specifically asked about, as he says he did of all the other men who examined her. She was examined by two of my colleagues in the city and they, too, said she had no adenoids. Treatment to naso-pharynx and a

few inflations relieved the trouble. Her parents live in St. Louis and while visiting there in the summer they advised her to go to their specialist, who also said she had no adenoids, but who did a very nice submucous resection of the septum for her. In November she had an attack of la grippe, and with it another acute otitis media. No rupture of the drum and husband said no bulging. Consulted me soon after regarding her ears. Had closed tubes, defective hearing and some tinnitus. An examination with naso-pharyngoscope at once revealed a small adenoid in the vault and the fossae of Rosenmueller full of adenoid tissue. Under ether I removed the adenoid in the usual way and, having by this time discovered some of my other incomplete work, bent a large ethmoid curette and with my finger as a guide curetted out the fossa and also wiped them out with gauze. A later examination with the naso-pharyngoscope revealed I had gotten one fossa entirely clean, but in the other one was a small hump of tissue as large as a small pea and attached to bottom of fossa by a small pedicle looking like a polyp and laying against the posterior lip of the tube, only a small tip of it visible with pharyngeal mirror. Evidently the pedicle had escaped both curette and finger. It was easily removed with a Holmes curette under view by the naso-pharyngoscope and she has had no further trouble. Tubes opened up without inflation, hearing perfect, and she is a very satisfied patient. My judgment is that the adenoid in this case would have escaped us all without the naso-pharyngoscope, and in a few years she would have developed a well marked case of otitis media catarrhalis chronica. I have since had made a small adenoid curette to clean out the fossas, which works better than anything I have used but does not quite suit me yet. Hope to improve it.

I have also removed a small adenoid from two other adult cases that was not visible with pharyngeal mirror. One a nurse who was just beginning to get tinnitus and a slight confusion of sounds. Had a small adenoid, but the fossae were full of adenoid tissue which became congested at each attack of coryza. Under ether I again curetted the fossae with the bent ethmoid curette and removed the adenoid. Vaults and fossae clean, tinnitus gone, and hearing perfect.

The other case, an attorney, was having no ear trouble, but after doing a submucous on him, and getting plenty of room in the nose he still complained of some lack of air. The adenoid was only small, fossae were full. I removed it under local anaesthesia, not much larger than my thumb nail after being shrunken by cocaine, but he says he can get plenty of air now, and even goes so far as to say that this did him more good than the submucous when the deflected septum entirely closed one nostril. I later curetted the fossa with a Holmes curette under view by naso-pharyngoscope to prevent future atitis media catarrhalis chronica.

In the acute catarrhal cases, or in the very acute purulent cases, following as a rule an acute coryza, the swollen mucous membrane, often closing the tube, is very easily seen, and being able to determine positively

if the tube is open and draining helps to decide if a paracentesis is necessary in these catarrhal cases where there is very little if any bulging of the tympanic membrane.

I have only treated a few of these acute cases by Holmes' method of shrinking naso-pharynx, and lumen of the tube with cocaine and adrenaline and then applying or injecting weak solutions of argyrol to establish drainage through the tube and thus prevent a discharging ear. From this little experience I believe many cases can be relieved by this method.

Another valuable use of the instrument is to be able to know by direct view that your eustachian catheter is in the tube when the tube is so closed. You cannot be certain from the sound through the diagnostic tube if your catheter is in place or not, and in these same cases it is even more valuable if you want to pass a eustachian bougie.

I have examined every case of otitis media catarrhalis chronica that came under my care, and in nearly all have found some remnants of adenoid tissue in the fossae. Generally bands from post lip of eustachian tube to post pharyngeal wall. Also found it in some without any ear symptoms. We all know the part played by this tissue in causing naso-pharyngitis and hence chronic catarrhal conditions.

My treatment of the stenosis of the tubes in these cases by the injections of argyrol solutions and direct applications of same solution on olive pointed cotton wound wire applicators, as advised by Holmes, has not been very successful. However, I have dilated strictures a little more boldly since I am able to see what I am doing, and so have gotten some better results, and have relieved several cases of tinnitus by curetting the fossa of Rosemuller that I had failed to relieve by inflation or by breaking up this tissue with my finger, so I am still hopeful of some better results with more experience and an improved technique. The technique must be very gentle, for Holmes especially calls attention to the fact that bruises and abrasions within the tube will more than undo the benefits of your treatment.

A young man had been under my treatment for otitis media catarrhalis chronica with severe tinnitus for several weeks before I did my work with Holmes. I had done tonsillectomy, removed a small central adenoid, opened the tubes by weeks of inflation and sounding and loosened them from posterior wall with my finger and still much tinnitus. He was the first case I curetted with Holmes' special curette. This almost entirely relieved one ear and very materially improved the other. He died a few weeks later from a sloughing appendix, so I was unable to watch the final results.

My strongest conclusion is that the future chronic catarrh of the middle ear will be prevented by the more careful and thorough removal of adenoid tissue from the fossae of Rosemuller in the present generation.

In the purulent cases, either acute or chronic, you can see the pus discharging from the tube over the floor: find granulations, obstructions, adenoids or any other condition that would influence the treatment.

Much has been written on the tonsil question; innumerable new instruments have been devised for their removal, and I would not for a minute deery the importance of them, but this part of the tonsil and adenoid work being so easily seen has taken our attention away from the unseen adenoid, and the purpose of this paper is, first, to emphasize the importance of this pioneer work done by Dr. Holmes; second, to remind you of some of the incomplete work I am certain you all have been doing, and third, to call your attention to an instrument that I consider very valuable, use in my every-day diagnosis, and the further study of which I think will be of great benefit to us all.

JEQUIRITY IN OPHTHALMIC PRACTICE.

Dr. C. J. Lukens, Enid, Oklahoma.

In taking up the subject of jequirity, I know I shall have strong opposition—for the manner in which I use it and the general application which I make of it—but from the fact that I have used it at least a quarter of a century, and that successfully, it has justly gained a place in my practice.

Allow me to say that certain ones of our profession are too easily discouraged. When they get bad results from a new remedy, though it may be in a single instance, they give it up without any further investigation. It is this, perhaps, more than anything else, that put jequirity off for more than a quarter of a century.

Again it is receiving notice from the profession and is gaining in popularity. Careful ones are willing to take such chances with it as to place it in the list of reliable remedies in ophthalmology. A remedy should not be abandoned until a sufficient try-out has been made to test the real virtue of said drug.

Perhaps jequirity met its fate on account of carelessness in usage, and that, especially in out-door work, where the patients were permitted to return to their homes—and poor homes at that—also to contend with severe and changeable weather in going to and from their homes to the dispensary; and after getting home, remain in dirty, unsanitary rooms with no suggestion of cleanliness.

DeWecker of Paris, France, brought the usefulness of jequirity to the notice of the profession about the year 1881, at which time he made a favorable report of some two hundred cases. He was greatly enthused and made use of it for many years, I believe. Following DeWecker's report a great many American and foreign oculists began using jequirity. Some became discouraged early and gave it up; others continued its use with satisfactory results.

Dr. C. E. Michell, of St. Louis, published an article in the St. Louis "Courier of Medicine" soon after the appearance of DeWecker's article in the Paris Journal, and he, too, extolled the merits of jequirity.

I began the use of it after seeing Michell's article and have used it without intermission ever since, with only one bad result. That was in a case of syphilitic history. I had an understanding with my patient in the beginning as to the danger there would be in using it in such a case. I put the question to him: "Would you rather take the chance of regaining the sight of one eye with loss of the other, than to continue in life as you are?" He agreed that one good eye would be the better, and unfortunately it proved to be so. He lost his left eye, the poorest one. His vision previous to treatment was 5-200 of his right eye, and finger movements of the left at a distance of three feet. His case being of only two years' standing, the pannus came off of his right eye very well, and left him a vision of 20-40 in the remaining eye after treatment; he also had good vision for reading. I had him under observation for seventeen years after the treatment and his vision remained about the same. He never had a recurrence of the granulation.

A surgeon should not give up the amputating knife just because his patient unfortunately died following the operation; or putting it more mildly, would have to sacrifice a limb on account of accident or disease, and by sacrificing the limb save the patient's life. So, also, should the oculist feel grateful for the restoration of the sight of one eye in these desperate cases even though the other eye be lost. Yet many of our ablest men have been driven from the use of jequirity from one failure only. It is not my policy to give up on account of a failure in one instance, or, for that matter, in several cases, if I have confidence in the general results.

All of the caustic remedies have been tried and uniformly failed, so we must adopt some form of treatment that will yield a certain per cent of cures, or abatement of the disease, at least.

As I started out to write this paper based upon my own experience, or to make it as nearly original as possible, it will be in order for me to give the manner in which I have used jequirity, the effects I have had from the different preparations and from the remedy in general.

I first began the use of it by making a decoction from the bean and would make a fresh preparation for each case. I soon abandoned this for a tincture made by Parke Davis & Co. This I did not like on account of the rapid deterioration, so ordered the powder, and have used it ever since. I like it on account of the certainty of action regardless of the age of the preparation, and the certain, rapid and profound effect it produces. I have used from the same ounce bottle of powder for the past twenty years, and it seems to be as good now as in the beginning.

To show my experience I will take up cases in the order of treatment under the different forms of preparations, also in my different stages of experience with it.

Case No. 1.—J. H., aged 71, had sore eyes for thirty years and had been treated with all of the caustic remedies, with some of the sequenees remaining. (Arygrosis.) Vision in both eyes was alike and that very poor—20-200. His cornea were very thickly covered with pannus, vessels cours-

ing over both of them. The granulations were of the discrete form, scattered over the conjunctiva of both upper and lower lids, with large cicatrices intervening. I dropped the decoction in each eye every two hours for eight hours and at the end of that time I had two of the worst looking eyes I ever saw. This being my first case and he cursing at the top of his voice, I thought I was up against the real thing and would likely come out minus the sight of both of his eyes; but, fortunately, it was not so, and it was one of the most successful cases I ever treated. Had my will power not weakened somewhat from my experience in this case, my results could have been much more brilliant in the future cases.

In a few cases following in which I used the decoction I did not get as satisfactory results, for the first was so alarming that I became more sparing with the medicine and also sought to protect my own nerve shock.

When I found my disappointment I made a trip to St. Louis to pay Dr. Michell a visit and ascertain his method of using the remedy. He was using the decoction and was not at all sparing with it. He said that when he was disappointed in not getting effect enough, he wrapped a cloth around his finger and rubbed the lids briskly. I am safe in saying he got them up all right. I went home confident in the remedy, and lost no time in getting the full effect, and had much better results. When my fear wore off I had good results in nearly all cases.

There are a certain number of cases which will not come under the influence of jequirity; they seem to be immune from its effects. Others will partially come under its effects but not wholly; therefore, if you wish to get good results from it you must do so from the first application, for they do not become influenced from it the second time, but there seems to be a tolerance established—at least this has been my experience with it.

Case No. 2.—Frankie G., aged 17, came under my care for treatment of trachoma and pannus, with almost complete loss of eye-lashes of both upper-and lower lids. She had had granulations since a small child, had extreme photophobia, almost an absolute intolerance of light, and had been kept in a dark room most of the time. After instilling cocaine and anaesthetizing the eyes so she could bear the light, her vision was 20-40 in the right eye and 20-60 in the left. She had but little pannus, very thin. I dusted the powder in her eyes twice and got extreme reaction with constant suffering for about two days, during which time I kept her well under the use of morphia. In four weeks she was discharged. For at least ten years following she was comfortable and her eyes remained well, except a slight blephoritis marginalis. Her vision after treatment was 20-30 in the right eye and 20-40 in the left.

It has been the custom of most oculists to use jequirity in cases of well defined pannus, but I find I can use it in cases of but little pannus, and in some cases in which the cornea seems perfectly clear. In these cases I dust very little in one eye at a time and watch the effect. Should I think I am getting too great a reaction, I bring it down with ice cloths. I have had no alarming cases and use it rather freely without fear. If

the one eye does well and the action is subsiding nicely, in about three days I use it in the other.

A substitute has been offered the profession in the bringing out of jequiritol and jequiritol serum, but I have not had any experience with them. I ordered them twice through Merck, but they replied that they did not have them in stock, so I gave up getting them. I do not feel that we need a substitute for jequirity, but a working knowledge is all-sufficient. There is one thing sure: eyes thoroughly treated with jequirity will never bother again, for I have observed them for twenty years following the treatment. It does not leave any scars nor bothersome sequelae.

Recapitulation.—Do not be afraid of it. Do not disregard its usefulness on account of prejudice. Don't allow the sad experience of a few to ostracise from your attention one of the most useful remedies ever brought to the notice of the profession. It is being taken up now by very reliable men, and soon will be regarded as reliable and safe, in safe hands—that is, those who are careful in its use who know the suitable cases in which to use it, and take good care of their patients after using it.

It has been suggested by some to follow up the first application of jequirity with astringent and disinfecting remedies, but in my practice the astringent remedies have not been borne well; in fact, seemed to aggravate more than do good. A mild boracic wash is all that is necessary to prescribe. I often direct patients to wash their eyes with a mild salt wash morning and evening, which seems to fulfill all requirements as after treatment.

The eyes do not become strong for at least three months. You must get full effect from jequirity—that is, you must have the formation of the false membrane on the lids, and not be satisfied by simply the irritation which it will produce, for otherwise the result will be negative, and the case really worse than in the beginning. To get good results, the more swelling and oedema, the better, especially if it is followed for some time by a profuse discharge. It is not dangerous to use jequirity over old, indolent ulcers and phlyctena, but I would not attempt to use it over an acute inflammatory ulcer.

DISCUSSION.

Dr. Jenkins, Enid: I am glad indeed that I did not miss this paper, and I am sorry I missed the others. I am especially interested in this subject at this time. I have never used the drug myself, and I hope the gentlemen that have will enter largely into the discussion. I now have a patient that I have been talking to for the past week or ten days, intending to use it, and I am a little afraid and need a little encouragement. I believe I have a case where it would be well to use it.

Dr. Weiner, St. Louis: I must confess a lack of knowledge of this jequirity myself. I have heard that Dr. Michell has abandoned it, and has not used it in the last sixteen or seventeen years. The reason he

has not used it is because he had some very sad experiences with it. While he had some excellent results in some cases, he had enough bad experience to make him afraid of it. It has always been my opinion that the benefit of the jequirity is mainly in the reaction it produces, if that is not the only good it does.

Dr. Lukens: I have enjoyed the discussion on this paper. I know that jequirity has served me well and I am going to continue to use it. Speaking of the cases that caused the doctor to give up its use, the doctor evidently sought to get extreme results, and he might have got too much of a reaction. At the time I saw him he was very enthusiastic about it. When I first went to New York they were using it there, and they did not use it long because they had a sad experience with it. I did not wonder at the experience they had with it there. The patient would come there and they would keep putting it in and permit the patient to come and go. It might be that I have been more fortunate in my practice than some others with it, but I feel at the present time that I really have not used it as freely as we ought to use it; yet we have to be careful in getting too much reaction.

Dr. Jenkins: Do you advocate putting it in more than once?

Dr. Lukens: I use the powder and put it in as much as necessary. It is different in different cases. As in a case of a gentleman 72 years old and a patient 12 years old, the younger patient requires less. I put the powder in the eye once and if I do not get a good reaction I put it in again. I did this with a patient, putting it in the right eye. The second time I got a very satisfactory reaction. He kept insisting that I put it in the other eye, and one evening I told him I would dust just a little in the eye and I did. Next morning it was up very large and he had a profuse discharge. Some people will scarcely come under the influence of it at all, and again I never could get the effect the second time, after I had it once. I can dust the eye full of the powder the second time and it does not seem to take effect.



CHARACTERISTIC DIFFERENTIAL POINTS OF THE MORE COMMON FORMS OF INSANITY.

Dr. W. W. Rucks, Guthrie, Oklahoma.

The nervous system is a unique and complex apparatus for the performance of unique and complex functions, unlike any other portion of the body both in anatomy and physiology. Roughly regarded, it is a mass of tissue constituting the center of the organisms, of uniform structure and more or less singleness of function.

When regarded minutely in its multitudinous relations to all parts of the body, it is a very complex organ with a great variety of functions. Nervous matter per se consists of the nerve cell with its processes, the supporting environment of neuroglia, connective tissue and blood vessels is extra neural. From this point of view the nervous system is more simple, the true neural tissue being that involved in degenerative inherited and certain systemic maladies, while the extra neural tissue is that afflicted by the inflammations.

It is difficult to retain this simple conception of the nervous system because we are accustomed to seeing its activities manifested in so many different ways. Mental, motor, sensory and trophic are the ways that we usually signify nerve force. From this standpoint a thorough knowledge of the anatomy and physiology of the nervous system is necessary before its disease can be understood. That disease is nothing but perverted physiology, applies more aptly to the nervous system than to any other portion of the body. Mind, being a thing of physiological function produced by the internal interplay of the afferent impulses, the diseases of it are best studied from a physiological standpoint.

One's mind and its workings constitute one's personality. We have been accustomed to view insanity as a very marked change in an individual and his personality, and a prolonged departure from the normal mental status, but many observers now maintain that the change consists of intensification of normal traits of character. There is no standard of sanity, departure from which constitutes insanity. There are no two personalities precisely alike and no two cases of insanity precisely alike, but cases resemble each other in their mental symptoms sufficiently for classification. In order to give a correct prognosis it is not only necessary to know the form of insanity from which the individual is suffering, but know his own peculiarities, such as his habits, heredity, education, surroundings, temperament, etc. Then we can compare the individual with himself and see wherein he has departed from his standard and estimate the probability of a return to it.

A person thus afflicted has his whole relation to the outside world affected in a most comprehensive manner. Even in its mildest forms insanity involves the greatest suffering that the physician has to meet. No other disease is at all approaching it in the terror it inspires, the sense of helplessness it causes and the disturbance of all social ties. It is appar-

ently increasing with the most unfortunate rapidity and has become one of the state's heaviest burdens.

All the insane are dangerous in some degree to their neighbors, and even more so to themselves. Mental derangement is the cause of at least a third of the suicides, while by them numberless crimes are committed, varying from the most atrocious murders to petty larceny. Many families are ruined by their afflicted members, either by the senseless squandering of money, crimes committed, or the constant attention demanded, together with the increased expense which such conditions naturally bring. And these patients may live on for years, imbecile and helpless, imposing continuously heavy burdens on their families or the state.

For all these reasons it becomes our duty to make ourselves familiar with the phenomena of insanity so as to be able to do our share toward the prevention and alleviation of the endless miseries engendered by mental disease. Heredity offers the most vulnerable point of attack. It may frequently be possible to prevent marriages among the insane or those who have strong ancestral tendencies to insanity. The abuse of alcohol, morphine, cocaine and the contracting of syphilis are among the acquired causes, all of which are preventable.

In order that we may intelligently treat insanity it is necessary that we should be able to differentiate between the various forms in which it manifests itself, and as I have previously said, these forms are modified by the peculiarities of life which the patient exhibited before his mental disturbance became manifest.

One of the most common forms is melancholia, a disease of the involutionary period of life, setting in at the beginning of old age in men, and in women from the menopause on. It might be regarded as a morbid expression of the feeling of growing inadequacy, usually more or less noticeable in healthy people of the same age. Those who are morbidly disposed by nature of course become melancholy most easily. The most characteristic symptoms of this disease is apprehensive depression, with delusions of sin, frequently of a religious nature, such as having fallen away from God or being possessed of the devil. Hypochondrical ideas of never being well again are also very common. Also apprehension of poverty, of having to starve, of being cast into prison, etc. As a consequence of this mental unrest and the tormenting ideas, the wish to have done with life almost invariably develops, and the patient becomes suicidal.

These patients are quite clear as to time and place and as a rule answer quickly when questioned, showing no impeded volition. The treatment of melancholia is fairly favorable, about one-third of the cases recovering.

Another very common form is that known as manic-depressive insanity, which is characterized by either depression or excitement. The depression differs from that of melancholia in that there is no apprehension. These patients are slow to think, slow to act, and slow to express themselves. They are not apprehensive, which is characteristic of melancholia, but

low-spirited. In melancholia there may be lively jesticulations, lamentations and complaints, while in this form of depression it is hard to draw any remarks from the patient at all. There is no fear in expressing himself, but a general obstacle to utterance in speech, and not only speech but all actions of the will are difficult to him. Then we would say that the most obvious clinical symptoms of this disease is impeded volition, in the sense that the transformation of the impulses of the will into action meets with obstacles which cannot be overcome without great difficulty, and often not at all, by the patient's own strength.

This disease usually runs its course in a series of isolated attacks which are not uniform, but presents either states of depression or excitement, separated usually by a period of freedom. I think close observations, or rather a full history of the patient's former life, will show that those patients who suffered from depression had what might be termed a depressive personality, and those who suffer from excitement had what might be termed a manic-personality.

The state of excitement may vary from slight exaltation to the most frenzied mania. The prognosis is good so far as recovery from the attack is concerned, but recurrences are very common.

Dementia praecox at first sight might be classed as depression due to manic-depressive insanity, as these patients make their statements slowly and in monosyllables, not because of an overpowering hindrance, as in manic depression, but because they feel no desire to speak at all. They understand what is said to them, but do not take the trouble to answer. They pay no heed and answer without thinking; no visible effort of the will can be noticed, while every act of the manic-depressive is one of visible exertion. All their actions and movements are languid and expressionless, but are made without hindrance; they are not deeply affected by what goes on about them, although they understand it without difficulty; it is all the same to them where they are, who comes and goes, or who cares for them. The lack of any strong feeling of the impressions of life, weakened judgment, with mental and emotional infirmity, with ability to understand and remember is really the diagnostic point. Here, too, we may profit by a knowledge of the patient's life before the advent of the psychosis. They usually are secretive, prone to keep away from people, taking only a passive interest in things about them, living to themselves. In fact, what has been termed a "shut-in personality." I do not think it is expressing it too strong to say that practically all cases of dementia praecox comes from individuals with this peculiar personality.

Frequently accompanying general paresis of the insane is a depression which resembles the depressions of the diseases we have just discussed. It is differentiated from melancholia in many cases by the patient not yet having reached the age at which melancholia sets in, the indifference with which he makes the most inconsistent assertions, lack of judgment and the absence of deep, emotional feelings. It differs from manic-depression in that there is no signs of impeded volition. They speak very little

and in low tone, but not because of any obstacle they cannot overcome, as in manic-depression. The depression strongly resembles dementia praecox. They differ from dementia praecox in not showing that peculiar ions. They differ from dementia praecox in not showing that peculiar disturbance of volition which causes them to show automatic obedience, negativism and stereotypism. Even though one should not be clear in this, the physical examination will leave no doubt as to the diagnosis. The pupils are frequently unevenly dilated and are inactive to light, the tongue is put out tremulously and the knee jerk is exaggerated, the walk is unsteady and the patient sways when he stands with his eyes closed. The evidence of physical disturbance is so marked that there can be no doubt that the cause is a profound physical disturbance of the brain, which as we know is usually due to syphilis. The prognosis under the usual treatment is always fatal.

However, I have recently observed that a few cases have been treated by drawing off some cerebro-spinal fluid through a lumbar puncture, centrifuging it and growing a micro-organism which has been found to exist in all these cases, and making a vaccine from it and giving it to these patients according to their opsonic indices, with benefit in all cases thus treated. It remains to be seen what the outcome of this will be.

Paranoia is characterized by progressive systematized delusions, always of persecution. It develops most generally about middle life in a person of eccentric personality, which no doubt has much to do with shaping the delusions. The eccentricity deepens into delusions of persecutions, which may be accompanied by hallucinations of both sight and hearing. After a long period of the stage of persecution in which homicides and other acts of violence may be committed, these patients pass into a state of grandiose ideas in which they think they are persons of very great importance and of vast wealth, and are comparatively happy. The characteristics of this disease then would be eccentric personality, delusions of being wronged, and over self-esteem, with absolute imperviousness to reasons.

As the malady indicates a profound and progressive deepening of the mental personality, it is not accessible to cure. It is much more usual after a number of years, for certain mental weakness gradually to develop out of it and the patient lives on indefinitely in this condition.

There are several other forms of insanity which are very common, especially epileptic and alcoholic. Of course the most severe and pronounced symptoms of epileptic insanity is the actual convulsive seizure, but under some circumstances we will have to consider cases in which convulsive attacks have never made their appearance to be epileptic, by the continuous and periodical return of fits of temper, uncontrollable depression, irritability, peevishness, all kinds of imaginary symptoms of internal disease, hypocritical piousness, and a mania for medicine.

The thing to which I wish especially to draw attention is that the personality of the patients previous to the advent of the psychosis to a large extent determines its form and modifies its cause.

*MORBID MENTALITY FROM A PSYCHOLOGICAL VIEWPOINT.

Dr. F. B. Erwin, Wellston, Okla.

The state of the mind impresses itself very forcibly upon the person's actions, the functions of the different organs and glands of the body. It likewise affects the manner in which he expresses himself in language. When the actions are referred to, the movements or positions of all the muscles of the body are considered, especially the facial expression.

Under normal conditions the sensorial nerve endings receive and transmit impressions to the centers in a normal manner and they are interpreted normally. The different states of the mind in normal persons are indicated by the expressions and actions of the person. These are good indices to the psychical condition in either a normal or abnormal mind.

One of the first things to consider is attention. It is that state of the consciousness in which there is a concentration of the mind upon one thing for a longer or shorter length of time by means of some stimulus, either internal or external, to the person. This condition is frequently noted upon the face by a contraction of the frontal muscle. Intellectual work impresses itself very forcibly upon the expression of the face by the contraction of the superior portion of the superior oblique muscle.

External attention is obtained through the common and special organs of sense. The resting of the eyes upon some object arouses an interest, therefore attracting attention. This may be obtained by means of luminous or colored objects. These objects may be at rest or in motion. In some psychoses the attention is frequently easily obtained, but also very easily lost. In others hard to obtain and easily lost.

Auditory attention is obtained by means of sounds of different kinds. In certain forms of mental diseases, some forms of dementia praecox, a whisper will attract the auditory attention more quickly than a loud noise. In some abnormal mental conditions the attention may be noted as obtained, not by the person turning his head in the direction from which the sound came, but in the opposite direction. Sometimes they will turn the entire body and frequently move away from the direction of the sound, as in paranoia. The force of the impression upon the mind can frequently be noted by the strong or weak motion of the eyes, face or body or the expression of the face.

The tactile and stereognostic attention is noted by the muscular contractions of the body, especially the trunk. The person frequently complains of the clothing being too tight or of the soles of the feet not feeling pain—that is, seeming to them that they are walking upon a carpet, and numerous other expressions which indicate the condition of the above stated attention.

The olfactory and gustatory attention are obtained mainly by the food and drink the person takes. In certain forms of mental diseases

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the person claims and firmly believes that they are being poisoned by something being placed in their food or drink. These ideas prevail in the paranoid form of dementia praecox.

The first sign of internal attention is the lessened regard for outside things. The second is the desire to remain quiet and think—the desire to be alone, in a meditative attitude. In this state the parallel position of the optical axes is characteristic. The third sign is the dilatation of the pupils, which is due to a partial or complete arrest of accommodation. The fourth sign is the general inhibition of the reflexes, also the arrest of the general improvement of the body. The muscular tone of the body is lessened as well as the organic and glandular actions.

With a change in the internal attention there is always an increase or decrease in the volitionary powers. A concentration of the volition is accompanied by a strong contraction of the upper lip and increase in the muscular tone of the body. A strong will-power is generally accompanied by a strong attention. Inversely a weak will-power denotes a feeble attention. An open mouth and a feeble muscular tone indicates a feeble will-power. This last is very noticeable in idiots and imbeciles.

The emotions are generally very clearly depicted upon the visage, normally. Sadness expresses itself by the contraction of the muscles of the eye-brows. The internal angle is elevated and the external is depressed. The base sentiments are shown on the face by a contraction of the pyramidal muscle of the nose, thereby depressing the internal angle. Displeasure expresses itself by the action of four bundles of muscles of the face: elevating the upper lip and alae of the nose; elevating the superior proprius; elevating the angle of the mouth (the action of the zygomatic minor). Joy expresses itself by the combined contraction of the great zygomatic and the inferior orbicularis palpebrarum. The great zygomatic enlarges the mouth and produces a series of radiating folds near the external angle of the eye. The inferior orbicularis palpebrarum raises the lower eye-lid and expresses good will. Disdain is depicted by a closure of both eyes and the lowering of the two commissures of the mouth. In extreme cases the mouth is opened. Dejection is expressed by a contraction of the muscles of the eye-brows in combination with the triangular muscles of the lips. Surprise shows itself by the contraction of the frontal muscle and a moderate contraction of the lower muscles of the inferior maxilla. Fright produces a contraction of the frontal muscles, skin and depressors of the lower maxilla to a maximum degree. Anger expresses itself by a contraction of the pyramidal muscle of the nose, the orbicularis muscles, superior palpebral, masseter, buccinator, quadratus of the inferior lip, skin and many muscles of the body. Indignation is indicated by showing the teeth and at the same time making a motion with the fist. Sensual love is expressed by the contraction of the transverse muscle of the nose in combination with the great zygomatic.

There are variations of the physiognomy according to race, sex, etc. The peculiar characteristic of the Caucasian race is the predominance of the superior palpebrarum orbicularis muscle upon the frontal. This is

inversely true with the Mongolian. The negro presents a coarse face with thick lips. The superior orbicularis palpebrarum muscle is less developed.

In the first three months of the life of a normal child the external attention is developed. From the fourth to the tenth month the child receives impressions and begins to assimilate them. The last of the first and the beginning of the second year begins the development of speech. In the first of the periods the child is in a state of satisfaction and contentment. In the second period he begins the contraction of the superior orbicularis palpebrarum muscle. The movements are very lively under the influence of action and thought. In the third period the psychological forces begin to present themselves in concrete form. A certain number of the emotional and cognitive processes remain in an undeveloped state until the age of adolescence.

The principal peculiarities of the physiognomy which differentiate the man from the woman are the following: The muscular tone of the man is greater than that of the woman; the eye-brows of man are more rectilinear and lower; the feminine expression is distinguished by an immobility and a monotony less expressive of the acts.

Health is characterized by the following signs or symptoms: A strong muscular tone; a bold, strong spirit and a contraction of the superior orbicularis palpebrarum muscle. Acts of gaiety are expressed by a contraction of the great zygomatic muscle in combination with the inferior orbicularis palpebrarum muscle.

Weakness of the mental state and fatigue are characterized as follows: A weakness of the voluntary muscles (flexion of the trunk). In fatigue of thought there is a feeble tension of the superior palpebrarum muscle. Where there is a lessened expression of gaiety there is a feebleness of the great zygomatic and inferior orbicularis palpebrarum muscles.

The following temperaments may be noted: Bright and prompt; gloomy, strong and rapid; bright, violent and rough; gloomy, strong and slow; bright, feeble and rapid; gloomy, feeble and rapid; bright, feeble and slow; gloomy, feeble and slow.

In examining the degenerates the predominance of the frontal and facial expression is noted. The characteristic expressions are the simultaneous contraction of all the frontal muscles; the putting, in sport or play, of the square muscle of the upper lip; the development of the infantile expression of the face; the relation or harmony of the face and trunk, which consists of a feeble, sluggish muscular contraction together with dragging movements.

The different functional alterations are numerous and interesting, but this paper shall deal with them only in a very general manner. Different mental states very noticeably alter the respirations. In melancholia it is very frequently slow; sometimes a long inspiration and a hurried expiration. In groaning and lamenting the expiration is brusque and rapid. In anxiety the respiration is extremely superficial. In extreme

pain the respiration is distinguished by great restlessness. In shame and modesty there is a predominance of inspiration. The respiration is superficial. The respirations are twice as great in joy as chagrin.

Often in degenerates the alteration in cardiac rhythm is observed. It is found also in nervous and traumatic psychosis. It is noted in the mentally defective secondarily and in the acute forms during the height of the disease. It is likely that the cardiac rhythm, as here referred to, shows itself more often in the psychoses than in the cardiac affections proper. A modification of cardiac rhythm is found in the prodromal state of mental confusion which develops rapidly.

Language is the medium of communication between men. In the expression of spoken language much depends upon the voice as to height, intensity, duration, rhythm and and the arrests or silences. In the different mental states these conditions, as stated, of the voice are noted very forcibly. In the manic form of the manic-depressive psychosis the increase in the height, intensity and duration are especially noticed. In the depressive form the opposite is noted.

An energetic and strong intellectual effort produces an excitation of the function, vasa-motor constriction, an acceleration of the heart and respiration. Intellectual work of the duration of many hours with relative immobility of the body produces an abating of the heart and diminution of peripheral circulation (capillary).

From the above we may note that the study of the abnormal mind in a psychological manner is very essential to the proper understanding of the different mental states. Also it helps toward the diagnosis. If one may understand the normal mind from a study of the actions of the person, why not know the abnormal mind by careful observance along the same lines?

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MORE ABOUT THE LAW AND THE INSANE.

M. O. Robertson, M. D., Durant, Okla.

In the March issue of the Oklahoma State Medical Journal, Doctor D. W. Griffin, of Norman, Okla., has a most interesting and beneficial article on "The Family Physician and the Insane Patient." Doctor Griffin said: "I wonder if any of you gentlemen have ever thought what would happen to you if, while walking down the street, you were struck by an automobile, knocked down, your head thrown against the curb, and insanity results?"

I am sure all physicians who have had experience in committing cases to the state hospital, out of the best homes in our country, have given this question careful consideration and have realized the need of legislation along these lines as Doctor Griffin has suggested.

Conditions are no worse here than in some of the older states. In Kentucky it is necessary to empanel a jury, present the patient, hear witnesses, and have a verdict of "insane," before the patient can obtain permission to enter the state hospital for care and attention.

I came from Kentucky last February. In August, 1913, a young Kentuckian, of excellent family, having a brilliant mind, well-educated and an excellent character, had a very severe attack of exhaustion psychosis. He was placed in a private institution for treatment, but in consideration of the fact that it was located in a residential district, it was impossible to keep him there. On a certain Saturday he was placed in the county jail to stay over Sunday, until the court could convene. This man died in about ten days, and I feel sure he could have been saved had his condition been recognized in time and the seriousness of same have been impressed on the family.

The truth of the matter is, gentlemen, we general practitioners know absolutely nothing when we get in the field of mental diseases and excuse ourselves because mental and nervous diseases are becoming a field of the specialist. Mental and nervous diseases are now receiving more attention in medical colleges than ever before. In the University of Louisville almost as much time is given to mental and nervous diseases as to general medicine, and I believe rightly so, because in this age of highly civilized people with their fast and impractical living, nervous and mental conditions are more common than at any other period in the world's history.

This condition needs our earnest attention, and who is the man to solve the problem? It is undoubtedly the family physician. It has been considered a disgrace by the laity to have had a case of insanity in the family, and yet, it is not realized that the most brilliant minds become exhausted and sick. They also look on the asylum with horror and dread, and I am sorry to say that some of our practitioners have somewhat the same feeling, which is entirely without foundation.

The laity must be enlightened, and before we can do it we must be enlightened ourselves. The most satisfactory way of self-instruction, I think, is to keep trace of your case after he has left your care and entered the state hospital. This is something we all need. I had occasion

to commit a case of dementia praecox since I came to Oklahoma, and the member of the insanity board of which Oklahoma is possessed agreed with me as to the insanity of the case, but advised the family to keep him at home as long as possible, stating that he feared ill treatment at the state hospital. I informed him that I had been through the state institution in Kentucky, and knew that it was a most excellent place for the treatment of such cases, and that I thought it the best and only place for mental conditions.

This physician, who is a prominent member of the profession, also stated that he thought the condition probably due to a brain tumor. I called attention to the fact that there was no evidence of increased intracranial pressure, and he stated that it might be in a silent area. Had I not seen a case of brain tumor I might have seen it in that light, too; but I knew brain tumor of a silent area, **would give no local symptoms, but the increased pressure would be none the less prominent therefor.**

This case was finally committed to the Eastern State Hospital. I took the boy to the institution myself, was taken through the building occupied by the male patients by Superintendent F. M. Adams, and found it as I expected, in competent hands, and well equipped for a new institution. I am glad to say that I was well pleased and returned home to assure the mother that her son would be taken care of properly, and was confident he would receive no ill treatment there.

There will never be legislation along these lines until not only the physicians, but also the laity, see the needs. My friends, it is of no little importance when it comes home to us. For your own personal and intimate friend to be placed within a county jail, and finally subjected to trial as a criminal, when he is so near death's door, will make one stop and think. And you will then wish that the state afforded another means of committing cases to the state institution. Doctor Griffin suggested, and I think it a good suggestion, "That the state have some expert man as a consultant, who is to be called to make a diagnosis and dispose of the case in the best possible manner for the good of the patient."

I, as well as others, know that a change of some kind is needed badly, and also know that the family physician can bring it about more quickly than any other man. But before he sets it right he must get right himself, for so doing, if he will visit one of the state institutions and see that human beings are in charge of these institutions, and that the grounds are devoid of public whipping posts, and make a study of the cases therein, he will return to his home to really instruct the people in regard to this matter, and will begin to instruct himself along these lines.

It is not necessary for us to take special courses to get sufficient knowledge to deal with these cases. In my medical course I was told that I was merely laying a foundation of knowledge on which to build. Great stress was laid on my being able to differentiate between simple and serious conditions, thereby enabling me to give the most accurate prognosis, the thing on which the public would judge me.

The thing I want to learn in regard to these mental states is the diagnosis and the prognosis. That solves the problem and the remainder is easy.

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Local news of possible interest to the medical profession, notes on removals, changes in address, deaths and weddings will be gratefully received.

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EDITORIAL

LYDSTON IS AT IT AGAIN.

Huerta in Mexico, the Apaches in Arizona, Lydston of Chicago, are all off the reservation again. Impulsive, picturesque, Don Quixote Lydston is again circularizing the medical profession of the country and fighting the imaginary shortcomings of the high officials of the A. M. A. His latest feat was the securing of a court order requiring those worthies to show cause why they should have the temerity to hold offices they were elected to, eat, breathe and otherwise functionate in this mundane sphere. He intimates that his exertions are not appreciated by the "insurgents," and the attacked officials have appealed from the decision, so, up to now the order amounts to nothing, and if it were effective it is probable that they would have a very good set of reasons for living in the manner they do without the entire approbation of Lydston.

Many physicians pay no attention to the embroilments of such a situation, consequently it is well to briefly note the underlying causes of all this tempest in a teapot. Stripped of all surrounding clouds it simply reduces itself to a matter of Lydston vs. Simmons. The personal dis-

like of Lydston for Simmons has kept this matter going for a term of years and at every opportunity Lydston attempts to throw on a little more ballast to sink the boat; his pet anathemas against what he is pleased to call the "oligarchy of Dearborn Avenue," the "coterie of A. M. A. politicians" and similar small tributes are many and varied and often hurled, so far without making any appreciable dents in the "system." It is possible that in some technical, hair-splitting manner the legal affairs are not always conducted with the same exact observance of the proprieties as those of Standard Oil and such corporations that have the cash to employ a Root or Choate whenever they need him, but no one conversant with the operation of the affairs of the A. M. A. believes for a moment that they have been managed in any way except at all times for the best interests of the American physician. The immense amount of work done to build the Journal up to its present powerful position of influence for good and in building up the coordinate committees to their present state of efficiency is known to very few physicians, but the results are there and will bear fruit as long as organized medicine exists. In doing such a great work many perplexing problems have been met and overcome and every act of the officials has had the aim of bettering our condition as a profession.

More than fifteen years ago the American Medical Association was in a chaotic state as an organization and from a business standpoint; there was no systematic plan binding together the scattered state societies which now make up its greatness; the weekly authoritative Journal which covers the United States and Canada like a blanket, carrying with it a concise statement of everything worth while to the physician, a publication that may well be the bible to all of us, was comparatively unimportant. With the reorganization of the Association every phase of medical endeavor was stimulated and has steadily increased. Hundreds of advertising fakirs, counterfeit remedies, "institutes," diploma mills, low-grade schools and similar matters have been given the coup de grace. As an illustration of the policies advanced by Simmons, the physician is reminded that fifteen years ago in Kansas City there were five or more medical schools with entrance requirements nearly nil. Their output of graduates as a rule were immature and poorly prepared to meet the responsibilities of physicians; there were perhaps in the entire country four or five schools having anything like respectable entrance requirements. The schools of all character totaled very high. Today in Kansas City the schools are consolidated. The situation has been duplicated in all the larger centers of population until we have a few more than a hundred, and most of them have very high standards. As a rule their graduates are physicians from graduation. This is one of the matters the Journal and its allies have accomplished, but every time a school with low requirements, a compound having only advertisers' claims to back it, a medical journal whose secret slogan was "we need the money," received an adverse report in the Journal or from the Council on Pharmacy and Chemistry, Simmons has added another set of industrious enemies to his increasing calling list.

These enemies, including Lydston, have shelled the woods for things to say about Simmons; his alleged past life and shortcomings have been laid bare, slander and libel have been carted about ad nauseam. The unanimity with which Lydston's propaganda is circulated by low-grade medical journals and the agencies noted above is suspicious and should warn the individual physician that they are not circulated for the good of the profession, but for the good of those interests who want a free hand and plan of action that will allow them to further exploit the physician.

Out in Bismark, North Dakota, a little village of five thousand, an alleged iconoclastic publication with the dignified name of Jim Jam Jems, has taken upon itself the task of eliminating Simmons by the libel route. Almost coincidentally with the publication of one of its spasms the two worthies editing it were tried and found guilty by a jury in the United States Court of criminal libel in another and similar matter. Just why such an obscure publication in such an obscure place should tackle such an octopus as Simmons, is a matter of conjecture. The best explanation we can give ourselves is that the interests are leaving no stone unturned to injure him and this idea is strengthened by the fact that they have also taken up the cudjels against the McCormacks, of Kentucky, who have been conspicuous in the affairs of the A. M. A. We are forced to conclude that the interests have spent some of their money to secure the support of such a publication and further that they are in desperate straits to resort to such means.

Lydston may be all right personally, but he should be ashamed to find himself in the ranks of such enemies as these. The company of vampires now attacking the A. M. A. from all sides are almost wholly without worth and respectability; their attacks are naturally aimed at the executive head of the Association, Dr. Simmons. We should remember the great work of Simmons and stand by him for better or worse as one of the bridges that has carried us safely over. Lydston talks vaguely and grandly of "handing back the Association to its membership"—well, we will take it, but so far as Oklahoma is concerned we will give it right back into Simmons' hands to "oligarch" with as he sees best. In other words, we are satisfied.

THE NEWBURGH SURVEY.

Ordinarily consideration of books and volumes sent The Journal comes under the head of reviews, but the little paper-bound volume entitled as above indicated and recently received by The Journal contains so much on which to do a little sermonizing that we abstract from it some texts which at this time are peculiarly applicable to cities and towns of Oklahoma.

The Department of Surveys and Exhibits of the Russell Sage Foundation recently took occasion to make a survey of conditions affecting Newburgh, a little city of 31,000 people, fifty-seven miles up the river from New York City. The report is interesting and in part is prefaced

as follows: "The purpose of this survey is and was constructive. It was not aimed to humiliate the city, but to improve it. . . . to make recommendations where corrective action is needed, and to acquaint the general citizenship with both facts and needs. . . . Follow-up action is now clearly a matter of local, not outside, responsibility."

This is some of the things the survey demonstrated, the comparisons being made with cities similarly situated as to inhabitants, wealth and opportunities: The school cost per pupil in New Rochelle was \$61.74, Newburgh stood ninth with a cost of \$34.89. Its schools had none of the following it should have had; half yearly promotions, physical training supervisor, medical inspection, school doctor or nurse, supervisor of penmanship, school yards used for playgrounds, class for backward children, class for truants and incorrigibles, kindergartens or evening schools. For public health it spent 12 cents per capita, its competitors spending up to 74 cents. Sixty-six infants under one year died in 1912; the survey suggested that popular education, control of midwives' advice to mothers, a pure milk supply and infant welfare station would reduce this high mortality.

Newburgh licensed milk dealers and made yearly inspections of stores and dairies; it was suggested that they should be inspected more frequently, that frequent chemical and bacteriological examinations of all milk supplies should be made, that dairy scores should be published in newspapers, that pasteurization should be encouraged.

It was found that 19% of the people were boarders, 40% had no room for family social life, 95% were without bath-tubs, 36% lived in tenements, 64% of the houses only in from fair to bad repair, 69% used toilets in common with other families, 39% of which were not in good repair, 82% of outside toilets had privy vaults and there were estimated 200 piles of manure in densely populated district; all this was observed in investigation of the living conditions of 276 families in neighborhoods where unskilled laborers must seek homes. Among the features counterbalancing these it was found that 99½% had city water, 95% opportunities for home gardens, 75% sewer connections, etc. It was suggested that all charitable, penal, school, societies, hospitals, nurseries and other concerns of like nature have a confidential exchange of information to prevent duplication of energy and waste.

The work undertook every phase of Newburgh's municipal and social existence. It should be in the hands of every municipal officer, health officer, teacher and physician. Touching so thoroughly on health matters it should be especially studied by the physician interested in public health betterment and that means every physician.

It is issued by the Russell Sage Foundation, 128 East 22nd St., New York City.

SIMPLIFIED NEOSALVARSAN ADMINISTRATION.

It has been thought for some time that one of the potent causes of some of the bad results in the administration of neosalvarsan could be laid to the door of improper preparation, technic of administration and chemical alteration or changes in the water used. In this connection the writer desires to call attention to a method which has been used several hundred times in the Indianapolis free dispensary and in his own hands has been found so simple and nearly free from external faults in preparation and administration, that probably not much improvement over it will be made hereafter in the intravenous administration of this drug. The writer has observed so many bad results from the administration of salvarsan intramuscularly such as abscess, necrosis, long standing oedema and induration about the points of injection, and also the fact that neosalvarsan is not entirely free from the same objection, that the intravenous is considered the only proper method of use.

A Luer or Paris ground glass syringe of from 10 to 20 c. c. capacity may be used, the needle accompanying having a slip socket. The syringe, needle, two small glasses for mixing the drug and any other little conveniences or anticipated needs may be easily sterilized. The arm is cleansed, a tourniquet lightly applied for the purpose of exposing the vein more prominently by the distention caused; the drug is now mixed in from 10 to 20 c. c. distilled water, which may also have been recently sterilized if one is suspicious of its purity, and drawn into the syringe, care being taken to expel the excess air. The needle is now plunged into the vein preferably not directly over it, but along the side, as it will be found to enter more easily; the tourniquet is removed and when the venous blood comes through the needle, the syringe is attached and the piston gently screwed, not pushed, until all the drug has entered the circulation, after which the needle is removed and the little flow of blood, if any, is easily stopped by light pressure with the thumb. The drug should be slowly administered.

Occasionally a little blood passes back into the syringe as the administration is begun, but as it is heavier than the drug promptly settles to the bottom and is the last to be considered; this blood should not be forced back into the vein, but left in the syringe unused.

It is stated that small quantities of this drug so mixed is isotonic with the blood. An observance of the above technique will convince the user that he has found the simplest method yet proposed, free from much danger and avoiding the preparation of apparatus and the annoyance of its failure to work when it is needed.

WOOD ALCOHOL AS A CAUSE OF BLINDNESS.

The Committee for the Prevention of Blindness of New York City has entered upon a commendable work looking toward the prevention of unnecessary blindness, among other causes, that produced by wood alcohol.

In a pamphlet just issued they cite the causes of blindness from this spirit, and, among other notable causes, they list the following reasons:

Wood alcohol is a poison; a teaspoonful may produce total blindness, a larger quantity often causes death. Twelve persons were blinded in New York City in 1912 and three were killed. Only in recent years has wood alcohol become a menace to life; formerly it was a dark, bad-smelling, bad-tasting fluid which no one was tempted to drink. A process is now known by which the taste, color and odor are removed. Wood alcohol when purified in this way looks, smells and tastes like "good" grain alcohol and may be easily substituted for it in wines, whiskies, cordials, brandy, essences, extracts and patent medicines, etc. **Wood alcohol is poison** and should not be used in any drink or medicine. Druggists sell wood alcohol under the following names, which do not indicate its danger to the purchaser: Columbian Spirits, Eagle Spirits, Lion d' Or, Colonial Spirits, Hastings Spirits, Acetone Alcohol, etc.

The industrial worker is subjected to this menace, often without his knowledge, as when in working in furniture varnishing, inside of large vats without adequate supply of fresh air, etc., by reason of breathing its fumes. It is proposed that proper legislation on this question be asked covering the following phases:

Prohibiting the sale of wood alcohol under any trade name without being labeled as a poison.

Prohibiting the use of wood alcohol in any article of food or drink, or in any mixture intended for internal use.

Requiring adequate ventilation in shops and work rooms where it is used or manufactured, and every other possible practicable safeguard surrounding those coming into contact with it, including labeling and alternate exposure to fresh air.

SOCIETIES, PERSONAL AND GENERAL NEWS.

Dr. C. G. Gordon, Waynoka, has returned from an extended trip to the Chicago clinics.

Dr. J. L. Blakemore, Muskogee, spent the Christmas holidays in Virginia with his son.

Dr. Wade Vann, Porum, has removed to Cement, Okla.

Dr. A. W. Dail, for many years a member of Caddo County society, died at the Chickasha hospital November 20. Dr. Dail was an old and highly respected physician in his county and leaves a large circle of friends to regret his death.

Dr. W. B. Reeves, Wapanucka, who recently had the humiliation of answering a malpractice suit in Johnston county, was completely vindicated by the court recently. As is often the case, the court dismissed the matter after hearing the evidence, without submission to the jury.

Muskogee is just now having some agitation looking toward the establishment of milk inspection, the office of city chemist and bacteriologist and dairy inspection. It is noted that the city commissioners allow appropriations for parks, libraries and similar matters, but there is a tendency to raise the cry of economy when this deserved move toward the protection of the health of the infant user of milk is broached.

Chickasha recently enacted an ordinance establishing pensions for firemen who had served a stated length of time as such, conforming to the new state law in such respect. The ordinance provides that after serving twenty years as a fireman, ten years consecutively as such, he shall on retirement receive a sum equivalent to one-half his salary on retirement, in no case less than \$25.00 monthly. A sick and accident benefit is attached and one injured in the service or permanently disabled is under the terms of the law to receive similar benefits.

Dr. Ed. D. James, Haileyville, has been appointed county superintendent of health for Pittsburg county. The appointment met with the unanimous approval of the county society, which went on record in the matter by a vote of confidence in his fitness and qualifications.

Dr. W. R. Bevan, for many years secretary of Oklahoma County Medical Society, has been forced to leave Oklahoma City on account of bad health, his position being temporarily filled by Dr. C. E. Lee. The many friends of Dr. Bevan will regret his untimely misfortune and the profession generally wishes him a speedy recovery.

Dr. H. E. Williams, McAlester, secretary of Pittsburg County society and county superintendent of health, has moved to San Antonio on account of his health.

Dr. I. B. Oldham, Muskogee, city superintendent of health, recently attended the New Orleans clinics.

Dr. M. H. Foster, Oktaha, has removed to Alderson, having secured a position as mine physician.

Dr. Walter M. Jones, Enid, has moved to San Francisco, where he will assume his duties as an assistant surgeon in the Public Health Service.

Dr. W. H. Aaron, Pawhuska, has been appointed physician to the Osage Indian school at that point.

Dr. J. B. Murphy, health officer of Payne county, on behalf of farmers in the vicinity of Cushing, registered a complaint that refuse from the Cushing refineries was destroying vegetation along the streams and has asked the department of health to intervene.

Dr. Charles C. Ross, an advertising gentleman of Oklahoma City, has been sued for the sum of \$100.00 by J. T. Gallaher, a Cleveland county farmer, who claims that Ross gave him a written guarantee to cure him of "prostatic trouble." The farmer says he took the treatment for five months and has grown worse and wants the hundred dollars.

Dr. B. F. Fortner, who for the past several years has resided in Springfield and had the Frisco Hospital at that place in his charge, has returned to his first love, the city of Vinita. Dr. Fortner, during his former years of residence in Vinita, justly won the title of Dean of Indian Territory Medicine, and his departure from this country was deeply regretted by his friends, who will welcome him back to his old location, the scene of his successful activities.

Dr. John W. Duke, Guthrie, is thusly handled by that partisan of partisan republicans, Walter Ferguson, in the Cherokee Republican: "Dr. John W. Duke, of Guthrie, is being boosted as a candidate for the Democratic nomination for governor. In view of the fact that the eminent doctor is the foremost expert on insanity in the state he should have a tremendous advantage in democratic circles."

Dr. Ernest Bungardt, Cordell, died at his home in Cordell from epidemic meningitis after an illness of a few days. Dr. Bungardt's death is doubly regrettable on account of the fact that he had barely entered his professional career and was only 27 at the time of his death.

A Falling Typhoid Mortality. It is announced from the office of the State Commissioner of Health that during the past three years the typhoid death rate has fallen from 666 to 399 for the past year. This has encouraged the commissioner to enter into an active campaign during 1914 for the reduction of the death rate from tuberculosis. He announces that later a detailed plan will be advanced and when ready will be supplied the Journal's readers.

Muskogee County Medical Society held its annual election of officers December 8, with the following results: President, J. Hutchings White; vice president, J. T. Nichols, secretary-treasurer, Benjamin H. Brown; censor, O. C. Klass.

McIntosh County elected: President, A. B. Montgomery, Checotah; vice president, John N. Shaunty; secretary-treasurer, W. A. Tolleson, Eufaula. After the meeting a sumptuous repast was indulged in by the members at the Tully Hotel.

Kay County held its annual election of officers with the following selections: President, H. M. Stricklan, Tonkawa; vice president, W. W. Lemon, Nardin; secretary, E. J. Orvis, Blackwell.

Kiowa County elected G. W. Stewart, president; C. A. Freeman, vice president; J. R. Dale, secretary-treasurer.

Logan County held its annual election December 10, electing J. W. Duke, president; L. A. Hahn, vice president; L. A. Newton, secretary-treasurer.

• **Dr. C. R. Day**, Oklahoma City, was appointed Dean of the Faculty of the Medical Department of the University on December 15, vice Dr. W. J. Jolly, resigned. Dr. Jolly's resignation was not due to dissatisfaction on the part of the board of education, but to the press of personal matters

and demands on his time. In the selection of Dr. Day the Medical College and the board will have the commendation of most of the profession generally throughout the state; he is a well known and highly competent dermatologist and pathologist and will have charge of the department of pathology in the University. It is unofficially stated that the position carries with it a salary of \$3,000.00 per annum.

Okfuskee County Medical Society reorganized and held its annual election of officers December 8, with the following results: President, W. C. Griffith, Weleetka; vice president, H. A. May, Okemah; secretary-treasurer, W. B. Carroll, Okemah.

Grady County Medical Society elected officers as follows: President, R. J. Baze; first vice president, S. O. Marrs, Chickasha; second vice president, P. J. Hampton, Rush Springs; secretary-treasurer, W. H. Cook, Chickasha.

Pittsburg County Medical Society held its annual election of officers December 2, electing James C. Johnston, president; F. L. Watson, vice president; L. S. Willour, secretary-treasurer, all of McAlester. The society voted an expression of confidence in Dr. Ed. D. James, Haileyville, believing in his qualification as county superintendent of health.

Georgia Surgeons' Club to Tour Europe.—Under the auspices of the Georgia Surgeons' Club, a sixty days' tour of the surgical clinics of Europe is being arranged for representative Southern surgeons, to wind up at the meeting of the Congress of Surgeons of North America in London the latter part of July, 1914. Those interested may secure details of the trip from Dr. R. M. Harbin, Secretary-Treasurer, Rome, Ga.

REPORT OF THE COMMITTEE ON TUBERCULINS AND TUBERCULOSIS ANTI-SERA, MUSKOGEE COUNTY MEDICAL SOCIETY.

Drs. Benjamin H. Brown, P. B. Nesbitt, Muskogee, and A. B. Montgomery, Checotah, Committee.

Physicians, like the rest of mankind, in matters of opinion or judgment, may be divided into three classes—enthusiasts, old fogies, and conservatives. The first grasp eagerly, sometimes hysterically, at each new, untried remedy, or develop mental strabismus in the pursuit of each latest fancy. The second are as stable as the rock of Gibraltar, not to be shaken by persuasion or proof, however weighty. The first change their opinions as readily as their clothing; the second, elevating consistency as their fetich, may blindly oppose the most thoroughly demonstrated facts, for example, the efficacy of vaccination against small-pox. The third class, daily increasing in numbers, and to which it is to be hoped we all belong, is that to which medicine owes its progress. Clinging tenaciously to the best of the old, accepting eagerly the proven best of the new, reason, and not prejudice, rules its decisions.

It is to this class that we must turn for our evidence in the classification of remedies, which may also be placed in three groups; those generally

rejected by men whose opinions are worth while, such as calcium sulphide in furunculosis; those by them universally accepted, such as diphtheria antitoxin; and those concerning which their opinions vary, such as quinine in pneumonia. In this last group must be placed even the most popular vaccines and serums for which claims of specificity in tuberculosis have been made.

The history of Koch's tuberculin, the progenitor of the multitude of serums and vaccines that have since arisen, is familiar to all, and is typical of the course which such preparations seem fated to follow. Koch published in 1890 his first reports on his old tuberculin. By reason of his exalted prominence, and the startling possibilities which this new remedy seemed to reveal, his publications on the subject caused a profound sensation in the medical as well as in the lay world. The remedy was seized on and used by physicians everywhere with an eagerness and enthusiasm seldom paralleled, and the first reported results were even more flattering than those claimed for more recent products. It was not Koch's fault that these claims were ill-founded, and reckless dosage and technic used. Soon the adverse reports began to come in; not only of lack of success with the remedy, but of slumbering tuberculous foci lighted into activity and of patients sent to premature graves. It began to be openly alleged, and with good reason, that the new remedy was doing far more harm than good. In a few years the revulsion was complete. A remedy enthusiastically received twenty-three years ago, had, a dozen years later, fallen into almost universal disuse. Gradually, with a better knowledge of dosage and the significance of reactions, the pendulum swung part of the way back. At present Koch's tuberculin does not seem to be growing in favor, either in surgical or medical conditions.① Some excellent men, among whom we may mention Trudeau and Baldwin, of Saranac Lake, remain unshaken in the belief that tuberculin is a valuable therapeutic agent, while others, whose words carry equally as much weight, for example Osler and Strumpell, are skeptical to the verge of pessimism.

Of the scores of biologic tuberculosis remedies that have followed Koch's pioneer work, each has had as its advocates one or more men of greater or less prominence, but, so soon as it has attracted to itself the searching light of science, it has been found unable to meet its author's claims. And there is this difference. No other similar product has thus far attained or retained an iota of the popularity of Koch's tuberculin. Most of them have flashed up and gone out. A few are still preferred by a limited circle.

It is impracticable to even enumerate all the preparations of the class under discussion. We will cite a comparatively few that have attracted a temporary interest or which are still sub judice. Among those who have attempted to obtain efficient sera we may mention Tizzoni and Centanni, Bernheim, Paquin, Viquerat, Mariagliano and Marmorek. For the two last named very favorable claims have been made, but not confirmed. Behring

①Salisbury, Practical Medicine Series, 1913, Vol. I., p. 79.

concludes: "Mariagliano's tubercle antitoxin contains no antitoxin.② Marmorek's serum, which excited a languid interest in medical circles recently, receives little attention now. Spengler's I. K., an extract of the red blood cells of "immunized" animals, seems to be running a similar course. Among tuberculins, a few which have recently been or are more or less in the public eye are, DeGiaca's, Dixon's, Friedmann's, Piorkowski's and Von Ruck's. Duket's "cure," being a secret preparation, can not be classified. There are many others which have attracted equally as much attention from the medical profession as those mentioned. However, we will endeavor to discuss briefly those which are prominent, either by being close to us geographically, or by reason of their financial backing and the energy of their press agents. None has as yet succeeded in obtaining recognition from the profession on account of pre-eminence of merit.

Duket's "serum," or "lymph," may be dismissed with a word. We would probably not have heard of it but for the espousal of its cause by ex-Senator Lorimer, of Illinois, and the subsequent, if not consequent, order to the Public Health Service to investigate the claims of its promoters. The Journal of the American Medical Association③, instituting an investigation, found that of four cases which it was able to trace, reported in the Duket booklet as much improved by the treatment, three were dead, and the fourth far advanced in consumption, while of 22 unselected cases to whom the treatment had been given, 17 were dead. The Journal properly concludes that the remedy is worthless and the man exploiting it utterly unreliable. The only purpose in referring to this preparation is to emphasize the dangers to which an untutored layman may expose the public by lending the backing of his money and influence to a nostrum concerning whose merits he is unqualified to judge.

We must apologize for even mentioning the Friedmann "cure," which has been declared by the general consensus of capable and unprejudiced observers to be worthless, and possibly harmful. Perhaps no other preparation with so little merit has ever been so sensationally advertised in the United States. It scarcely caused a ripple of interest in Germany, except as another illustration of the credulity and gullibility of Americans. The most unkindest cut of all was contained in a letter of the Berlin correspondent of The Journal of the American Medical Association, wherein he comments on the prevailing opinion among the Germans that American physicians are faddists and rainbow chasers, the opinion being abundantly confirmed by their reception of the Friedmann "cure." Now the truth is that the medical men of our country never looked on this preparation with other than a skeptical tolerance, which later changed to an active antagonism when it became apparent that Friedmann himself was here for the purpose of exploiting a tuberculin for which he had been scarcely able to obtain the barest recognition in his fatherland. The lay press is pre-eminently responsible for this monumental hoax and swindle on the Amer-

②Pathogenic Bacteria and Protozoa, McFarland, p. 746-7.

③May 24, 1913, p. 1653.

ican people—the lay press, aided and abetted by the attitude of many otherwise intelligent and responsible citizens. When the Friedmann sensation was at its height it was not uncommon to see expressions in the press, and even hear them from those whom we know to be friends of our profession, to the effect that the doctors were fighting the Friedmann treatment because they were jealous of it. It is discouraging to realize the light in which we are held by the laity at large. Rascals there are among us, without doubt; but, on the other hand, medicine counts among its devotees many profound thinkers and self-sacrificing philanthropists. The majority of physicians have probably adopted their calling for two principal reasons; first, that they may earn a livelihood, and, secondly, that they may devote themselves unselfishly to a high calling. Were the first the only reason, few of us would be here this evening. We would be imbibing at the breast of a more lucrative occupation, and one less fraught with distressing experiences, anxiety, sleepless nights, and premature gray hairs. There is not one of us but would gladly welcome any remedy that would add to his efficiency against our mighty foe, the great white plague. We would not ask whether its originator were quack or sage, friend or foe, rival or co-worker, so that we might hurry away to carry health to blighted homes and restore light to those that sorrow. But we consider it equally our duty to fight fraud and to resist the plundering of unfortunates. It is to be hoped that the deplorable Friedmann episode has at least had some effect in convincing the laity of the disinterested attitude of the great mass of our profession toward these remedies.

The principle of the Friedmann vaccine, the attenuation of the tubercle bacillus by passage through cold blooded animals, is not a new one. It was tried out by laboratory workers years ago. It was not used clinically, because previous investigators had feared to experiment along this line on human beings. It has been well established that a culture that has become avirulent by repeated transmission through cold-blooded animals, as well as by treatment with heat or chemicals or other methods familiar to bacteriologists, may unexpectedly re-establish its virulence and prove fatal to laboratory animals. There is no reason to believe that Friedmann has been able to provide against this contingency in human beings.

We have now come logically to the consideration of another of the "turtle" tuberculins, and one apparently closely related to that of Friedmann. Piorkowski, who conducts a laboratory in Berlin, undertook, in the course of a discussion of the Friedmann treatment at a meeting of the Berlin Medical Society, to account for the origin of Friedmann's cultures. He stated that in 1903 Friedmann had requested him to isolate a pure culture from a tuberculous turtle which Friedmann had secured from the Berlin Aquarium. Piorkowski undertook this task, and from the culture thus obtained grew sub-cultures. The resultant organisms could not be distinguished from human tubercle bacilli. Becoming interested in the subject, he pursued his investigations by feeding tuberculous human sputum to a number of cold-blooded animals, with the result that two frogs and a

turtle contracted the disease. Cultures isolated from these animals behaved identically as those from Friedmann's turtle. Piorkowski concludes that Friedmann's tuberculin is derived from the culture isolated in the Piorkowski laboratory, and that it is of human origin^④.

Recently Piorkowski has been investigating clinically a turtle tuberculin from which he claims to have had some very encouraging results. As to how this differs from the Friedmann preparation, or in what respects it is superior to it we are unable to secure definite information. Without at all desiring to impeach Piorkowski's motives, we will note that at present there is an effort to exploit this preparation that can not but prove very prejudicial to it in the eyes of sagacious men. The campaign of publicity followed immediately on the heels of an article of Beattie and Myers, which was noteworthy neither for the excellence of its English nor its scientific accuracy^⑤. Later this was followed by a second article reporting the result of treatment of four cases of tuberculosis^⑥. The first mentioned contribution was given extended reading notices in New York and other papers, and an abstract of it sent by the authors to practically every medical journal in the United States. A few printed this abstract, and in at least one the quoted matter was followed by a notice giving the price of the turtle serum and the address of its dispensers. About the same time a periodical called "The Trend," with a front cover illustration of a turtle and appropriate red lettering, carried a pseudo-scientific article which was obviously for the purpose of advancing the interests of the Piorkowski tuberculin. Only a few days ago circular letters were sent broadcast to physicians, quoting the price of this preparation at \$15 per cc. Aside from this nation-wide effort at publicity, some prominence has been given to this remedy by one of the Muskogee papers. These notices seem to be of purely local origin.

It is to be presumed that these attempts at exploitation are not sanctioned by Piorkowski himself. He would scarcely authorize the putting on the market, especially in such a sensational way, of a vaccine of which he himself has been quoted in a laudatory article as saying, in substance, that many thousands of cases must yet be treated, before we can come to a final conclusion as to the value of the remedy^⑦. Nor is it likely that it would find a very large sale at \$15 per cc., were this honest estimate of its originator given the same publicity as the flattering advertisements. We must further remember that Fritz Meyer, who earlier was enthusiastic over the Piorkowski vaccine, stated before the Berlin Medical Society in June, 1913, that he had never seen a case of severe tuberculosis really improved by Piorkowski's vaccine^⑧. We have now referred to practically all of the literature on this tuberculin, with the exception of "A Lecture on Tuberculosis," by Piorkowski himself^⑨. We have been unable to secure

④Berliner klinische Wochenschrift, Dec. 2, 1912, p. 2330.

⑤Beattie and Meyers, N. Y. Med. Journal, Sept. 13, 1913.

⑥Beattie and Meyers, N. Y. Med. Journal, Oct. 25, 1913.

⑦Pacific Coast Medical Journal, (Abs.)

⑧Muenchener med. Wochenschrift,

⑨British Journal of Tuberculosis, July, 1913.

the periodical containing the original communication, but, judging from quotations, it would add little to the evidence we have at hand. This tuberculin has aroused little interest in Germany.

The most impressive claims made for any tuberculin in recent years are probably those set forth by Von Ruck, of Asheville, N. C., for his preparation. His honesty we have no reason to doubt. If there is no fault in his logic, and no excess of enthusiasm for the child of his own brain, he has the most wonderful remedy of the age. He claims to be able to establish immunity in animals and human beings, to demonstrate antibodies in the blood of these persons and animals, and, further, to have treated over 150 cases of early pulmonary tuberculosis, with a clinical cure in every case^⑩. However, these results await confirmation. So far all the contributions on this subject made to the literature have been from either Von Ruck, or Julian^⑪, his collaborator—with one exception. Cummings^⑫ claims to have been not only not able to immunize animals with Von Ruck's tuberculin, but that the inoculated animals succumbed more quickly to tuberculous infection than the uninoculated. A United States senator is said to have been cured of tuberculosis by Von Ruck's treatment and, through his influence, a commission has been appointed by the government to investigate the remedy. Von Ruck seems confident of a favorable report.

In conclusion we wish to emphasize the following points:

(1) There is a wide difference of opinion among those in a position to know as to the value of any specific treatment for tuberculosis, some affirming that, judiciously used, tuberculin exercises a valuable curative effect, others denying any superiority in results from the use of tuberculin over that where dependence is had in hygienic measures alone.

(2) Of those who employ tuberculin the vast majority still cling to Koch's preparation, either in its original, or in a slightly modified form.

(3) Of those who employ tuberculin, the consensus of opinion is that the use of the remedy should be restricted to institutions where the patient can be kept under close supervision and control.

(4) It is possible that some preparation now obscure may prove to be the long-hoped-for specific, or that future investigations may find such. While we should guard against unjust condemnation of even the least promising of therapeutic agents, at the same time we should be slow to give our sanction to any one of a class of products which has been made the means of so much financial piracy, and has entailed such untold misery of mind and body on a multitude of unfortunates.

^⑩Von Ruck, Medical Record, March 22, 1913.

^⑪Julian, Medical Record, June 14, 1913.

^⑫Cummings, Jour. of Amer. Med. Association, June 21, 1913.

**PROCEEDINGS OF THE CLINICAL SOCIETY OF ST. ANTHONY'S
HOSPITAL, OKLAHOMA CITY, NOVEMBER 17-19, '13**

DR. M. SMITH, President.

BY DR. HULL

Case I. Girl 11 years old. Congenital dislocation of the right hip. This patient was operated upon by me at this hospital about ten weeks ago. At that time, by the manipulative method, I replaced the right hip, which had been dislocated since birth, and have kept it in this position of flexion and abduction, the so-called "frog position" of Lorenz. The dislocation was reduced without much difficulty, and after one week's stay in the hospital, she has been cared for at home. She is to return today to have the plaster changed, and I propose tomorrow, under an anaesthetic, to remove the plaster and to attempt to bring the hip somewhat to a position of lessened abduction and flexion, the first step toward bringing it parallel to its fellow. Plaster of paris will then be applied and as soon as the soreness has passed off, which will be in a few days, the girl will be sent home with instructions to return in ten or twelve weeks.

Congenital dislocation of the hip is a common orthopedic condition and is met with quite frequently. It may be unilateral or bilateral. It occurs most frequently in girls, the condition is not usually recognized until the child begins to walk, and there is then noticed a slight limp, if unilateral, and a distinct waddle if bilateral. The limp is painless, accompanied by no evidence of soreness or of muscular spasm. An examination would show a slight shortening of the affected side, and the great trochanter would be slightly elevated above Nelaton's line. An X-ray would show the exact position of the head with reference to the acetabulum.

Such cases, if a result is to be obtained, must be treated early, as early as possible, but that the treatment may be successfully carried to completion it is necessary to wait until the so-called "napkin-stage" of the child has passed, that the plaster may be kept clean and dry. Otherwise treatment might have to be abandoned.

Treatment consists in a replacement of the head of the femur in the acetabulum and is best accomplished by the manipulative method. This method is popularly called the bloodless method. Steps consist of a thorough primary stretching of all the contracted structures, muscles, tendons, ligaments and capsule, after which the head may be replaced by leverage. Clinical evidences of its replacement are shown by the audible click which is heard as the head passes over the margin of the acetabulum, the tightening of the hamstrings, thus flexing the leg on the thigh, and offering resistance to extension, and the detection of the head of the femur in the acetabulum by palpation beneath the femoral artery just below Poupart's ligament. It is not advisable to slip the head out and to replace it, unless it is thought that some portion of capsule or tissue is intervening. With the limb held in full abduction and flexion, plaster of paris is applied, enclosing the pelvis and extending to just above the ankle.

With some surgeons other first positions are more popular, such as a Muller or Calot. Every case must be regarded as an individual case and the limb placed in that position which offers a certainty of its being retained in the acetabulum. The first position should be maintained for a period varying from six weeks to three months, dependent upon the case as to age, depth of acetabulum, etc. Plaster should then be changed and the position of the limb altered. By successive plasters the limb should be gradually brought down until all plasters are finally discontinued and the limb left without support. Such treatment varies in length from six months to a year, or fifteen months.

The prognosis depends upon the age upon which treatment is begun, and upon the depth of the acetabulum and upon the shape of the head of the femur. Statistics are misleading but the end results are not as good as is commonly thought by the laity and by the profession. One thing to be emphasized is that these cases must be secured early. It is lamentable that this child has not been treated before she comes to 11 years of age. The X-Ray in this particular case shows an acetabulum very shallow and nearly filled up, and a marked antversion of the neck of the femur. At present the head of the bone is in the acetabulum. Of that I am certain. Whether or not it remains there after the child begins to walk must be left to time to solve. Should it re-dislocate backward again, it will be better for the future of the girl to place it anterior to the acetabulum beneath the strong muscles coming from the anterior-superior spine, for in that position the line of weight bearing is more anterior and she will be relieved of the physical fatigue and pain that comes to such cases when adult life is reached.

CASE II.

Boy 6 years old. Cerebral paralysis of childhood. (Spastic Paraplegia.) This patient is one of those human derelicts which is left after a storm is passed. An attack of meningitis at the age of two years took away from this boy the proper use of his limbs, and left him in a stiff, spastic condition. In time contractures arose, consisting of plantar flexion of the feet, flexion of the knees, flexion and adduction of the thighs. These contractions became so marked that locomotion became difficult and the child was able to walk only upon its toes.

These cases fall to the orthopedic surgeon, for surgery offers the only possible relief. Yet it must be acknowledged that the end results of the different operations advised in such cases, leave much to be desired.

Of late years considerable improvement has been offered by those who try to attempt to relieve the spasticity by methods other than those of stretching, tenotomies, and tendon lengthenings. A few years has now passed since the so-called Foerster operation was first performed. A sufficient number of cases have been reported to show that its results leave much to be desired. This operation consists of a section of posterior nerve roots. Such an operation is attended with some danger. Nerve blocking

by alcohol has been proposed by some men, and in some select cases seems to offer a good chance of success.

A number of months ago I corrected this boy's plantar flexion by lengthening his heel ends. At that time I thoroughly stretched the adductor muscles and kept his limbs in full abduction for a period of twelve weeks. I had hoped that the stretching and rest would be of benefit and that the adductor spasm would be relieved, but after a brief interval it again returned. Both feet are flat on the ground and the child can walk much better, but I decided to try the effects of alcohol injection into the obturator nerves, which as you know, supplies the adductor muscles. About ten days ago I exposed these nerves in each thigh and injected into the sheath a few drops of 80 percent alcohol. Paralysis was immediately induced and the legs could be very easily fully abducted. The child has been in bed for ten days. Yesterday I removed the stitches and in about four days shall allow him to get up and to walk.

From the experience of others, it is to be believed and hoped that the little fellow's condition is to be materially improved. The effect of the alcohol is to induce a peripheral degeneration of the nerve. This degeneration is not permanent, and its length of duration is dependent upon the strength of alcohol used. At some future meeting I shall report upon the subsequent progress of the case.

BY DR. C. R. DAY

Case No. 1. Mr. P. B., age about 50, family history negative. Had ordinary diseases of childhood, otherwise no serious sickness. History when first seen: A small, irregular, outlined ulcer just below the margin of lower eyelid. Clinically, this was a rodent ulcer. This was treated with carbon dioxide snow with firm pressure for 45 seconds. In a few days the slough was complete, leaving it as now seen. At present it is almost entirely healed and has none of the appearances of a rodent ulcer.

Case No. 2. Mr. B., age 42, family history good, previous health good. Some two years ago a small tumor appeared upon his back, to the right of the spine and about on a line with the ninth rib. This soon began to enlarge. The physician consulted at that time pronounced it a cancer and applied some kind of cancer paste. After this was removed, the area healed and for a short time seemed to be entirely well. Soon, however, another tumor appeared at the margin of the scar. This time another physician was consulted and removed this one with a knife. Again the wound healed, as was the case after the previous treatment. But again, soon, a third tumor appeared just to the side of the scar. This time a surgeon in Dallas was consulted, who pronounced the case syphilis and the tumor a gumma. The patient came to me to have a Wasserman made, but I removed a section for microscopic examination. The area was anesthetized and a section cut out of the center. The tumor appeared to be composed of many round masses and was very vascular. Hemorrhage was so severe that compression was not sufficient to arrest it easily. The next morning

it bled very freely when the dressings were removed, and I therefore applied carbon dioxide snow and froze the entire area very deeply, hoping to not only arrest the hemorrhage but to destroy as much of the growth as possible. The microscopical examination revealed an adenoma sarcoma. The patient returned in about one week, at which time the tumor was very much enlarged and a second one, some two inches to the right, half the size of a hen egg. The treatment since that time has been the use of erysipelas prodigiosus toxins, the first dose being a minim. This produced a severe chill. In twenty-four hours he still had one degree of fever. The second day two minims were given, followed with symptoms as before. I have not been able to give treatment every day, but did so each alternate day, measuring the dose so that now he is getting ten minims every day. The appearance of the skin some distance from the lesion looks very much like erysipelas, and you will observe that there is a sloughing of the tumor with what appears to be healthy tissue at line of separation of dead from live tissue. It will be interesting to follow this case. So far I am only promising the patient to push the toxin as far as possible with the hope of ultimate success.

BY DR. A. W. WHITE

Case No. I. Mr. S. Age 24, American, native of New York, civil engineer. Entered St. Anthony's hospital November 14th, 1913. Family history negative. Personal history negative, except for an attack of tonsilitis five years ago. Present illness began five months ago, in Washington, D. C., with an attack of pleurisy. This attack was moderate in severity for about five days, at the end of which time the patient had a chill, followed by fever and marked delirium, when he entered a hospital from which he was discharged three weeks later, but not well. His weight had gone down from 147 to 97. He still had trouble with respiration, coughed and expectorated considerably all the while, but very profusely at times. He remained practically in that condition until November 12th, when he was seized with a chill, followed by fever, and marked increase in expectoration. On entering the hospital examination revealed a pale, emaciated, weak individual. Temperature 103, pulse 130, regular, respiration 26. The right anterior chest was considerably retracted, with an absence of expansion on that side. Expansion increased on the left side. Fremitus absent on the right side of the chest between the third rib and the costal arch, flatness over the same area. Posterior on the right side, corresponding to the area above referred to, was found quite pronounced dullness. Bacteriological examination revealed pus cells, but no bacteria. The urinalysis was negative, as was further physical examination.

Today, November 17th, after very profuse, purulent and bloody expectoration, examination of the chest reveals a cavity in the anterior of the right lung, extending from the third rib to the lower margin of the lung. This cavity is about two inches in width. Dullness remains the same over the posterior part of the right lung.

There are two or three especially interesting points in this case, namely: On November 14th there was evidence of a markedly thickened pleura on the right side, which three days later gave way to unmistakable evidence of a cavity, while at the same time the same evidence on the posterior side of the right lung remained unchanged.

The absence of bacteria in the sputum from a pulmonary cavity is usually indicative of tuberculosis. However, we should not depend upon one examination of the sputum, as a day or two later bacteria might be determined. If this is a tubercular cavity, we would expect some involvement of the apices of the lung, which is not present in this case. There are practically two schools of thought with reference to the mode of entrance of tubercle bacilli, one that it originates in the apex of one or both lungs, entering through the glands of the neck from the tonsil; the other that the lower lobe of the right lung is first involved from the lymphatics.

As to the treatment of this case, frequent examinations of the sputum should be made to if possible, determine the kind of infection. If it proves to be tubercular, the case should be considered as one of advanced pulmonary tuberculosis. If it is found that the abscess is caused by the action of the pneumococcus or staphylococcus, or both, and it does not clear up with the expectant plan of treatment, surgical intervention, that is, draining the cavity externally, should be considered.

CORRESPONDENCE — MISCELLANEOUS — ABSTRACTS

What Is the A. D. S.?

Oklahoma City, Nov. 21, 1913.

Dr. C. A. Thompson,
Muskogee, Oklahoma.

Dear Doctor:—I am enclosing a little leaflet, title of which is "What is the Ads?"

Now a question has suggested itself to my mind, and that is, what benefit is the A. D. S. to the people, capital "P," and what have the doctors done that they should enter competition with the druggists, and in what way have they prepared themselves so as to be able to diagnose disease and prescribe for the same?

You will note that that they say that they have 800 non-secret remedies, and these are recommended for everything from a bad breath to piles. They also have a digestive tablet, and these tablets are recommended by 12,000 druggists to tone and strengthen the digestive organs, relieve pain and distress after eating, heart burn, sour stomach and indigestion.

In what medical college did these 12,000 druggists secure their medical training?

I thought you might be interested in this little leaflet, as it might be a subject upon which you would care to send a warning through The

Journal to the doctors in the state, advising them to look out for their interests. Recently I have been noticing the weekly and daily press of the state and have been surprised to see the enormous amount of patent medicine advertisements that are being carried by these papers in the state of Oklahoma. Making a rough guess I would say that there is not less than \$150,000 a year being spent by patent medicines and fake doctors, with the press in the state, in the way of advertising. Now we cannot blame the newspaper press for accepting business that amounts to that amount. There are about 800 papers in the state, maybe a little more, and I have estimated this at the small amount of \$15.00 a month, and I am satisfied it will run much higher, but I selected \$15.00 as being an average amount, but if you will take the pains to examine the papers and if you will talk with any of the newspaper men whom you can talk to in confidence, I think you will secure the information that this line of business has thrived with them during the present year.

In talking with the druggists over the state I find the patent medicine business in recent years has fallen off considerable. This may account for the renewed activity of their advertising agency, but of all the advertisements I have seen this little pamphlet is the most dangerous, and one that will do the public the most harm in my opinion, for the reason that most any of them that read it will select some remedy that their imagination will call for.

Yours truly,

FAKE DOCTORS.

Cherokee, Oklahoma, Dec. 6, 1913.

Dr. Claude A. Thompson,
Editor Journal State Medical Association
Muskogee, Okla.

Dear Doctor:—I am mailing you a copy of one of our local newspapers, The Cherokee Messenger, and wish you to notice an article written by the editor, Mr. Chas. Wilson, in regard to a "fake doctor" who applied to him for advertising space in his paper.

The article explains itself and the writer's views of the "quack" fake doctors traveling over the country faking the people and using many of our local newspapers as an instrument to promote the same.

I admire the stand this editor has taken in this matter and ask that you publish a copy of his thought in our State Journal.

Yours Fraternally,

L. T. LANCASTER.

FAKE DOCTORS.

I have just returned an advertising plate to a party advertising as a "specialist," with a letter advising him that it would not be carried.

It prompts us also to warn the public against these self-styled "specialists," which are beginning to work their graft at this season of the year. The method they pursue is, in our judgment, dishonest, and they should be, the most of them, serving time in the penitentiary. They are, as a rule, incompetent, dishonest and deadbeats. We know from experience.

Our interest in our neighbor's welfare for health prompts us to suggest that you will find in the corps of physicians in Cherokee, men who are honest with their patients, and if you are unfortunate enough to possess an ailment which they are unable to cure, they will frankly tell you so and advise you where and to whom to go for the best treatment. Your family physician could not afford, even should he be so disposed, to treat you dishonestly.

These traveling fakes will usually stop at a hotel for a few days and should you call upon them, they will deliver you a string of balderdash that neither you nor he understands, but he always separates you from your cash, and that's all he cares for.

You would be just as sensible to bet your money on the old shell games, as a rule, as to have business with them. They are just that character with a different mode of deception.

COLLIER'S WEEKLY TO AGAIN TAKE UP THE CUDGELS.

The following editorial comment concerning the attitude of Collier's Weekly and Mr. Samuel Hopkins Adams is quoted in part for the edification of our readers. Collier's Weekly is one of the most powerful lay influences in America today; constantly standing for what is right in the matter of drug and nostrum advertising and in Mr. Adams it has one of the pungent and to-the-point writers of the times:

In its issue of November 8, Collier's returns to the attack and promises a new series of articles "which will point out by what methods the newer fake remedies have established themselves and the older ones are still precariously maintaining themselves." Samuel Hopkins Adams has entitled his first communication "Oxy-fakery, in Tin-Can Sure-Cure School"—a caption which is most pat. The various oxyfakes have been exposed by some medical journals—and advertised by some others. Playing, no doubt, upon the layman's awe of the ultra-this and the wireless—that, the oxyquacks have contrived devices whose only possible virtue lies in the meaningless jargon and senseless terms which have been invented to describe the supposed action of the devices—and to befuddle the dupes. Being non-efficacious in the production of any kind of a current or in the causation of any kind of a supposed condition for which the meaningless names of "thermal diamagnetism," "diaduction," "polarity," "postivity," etc., have been invented by the oxyskinners, they are, of course, harmless in their direct application. Just as Christian Science and other things are harmless—but may be very harmful when, by pretending to have value in diphtheria, for instance, they prevent prompt and proper treatment. In the words of Mr. Adams:

Simply because a treatment is "harmless" it does not follow that it is not murderous. The lie may be the deadliest of poisons.

That such palpable frauds as those discussed by Mr. Adams should be able to find dupes, makes one almost doubt the advisability of trying to do or the possibility of actually doing anything with the kind of mind which that sort of person wears beneath its hat. Perhaps it is just as well to let them have an oxyfraud, of one kind or another. Only out of kindness to their dependents, it would be well to give them the following instructions for making an Oxyfaker, which, as will be seen, is sufficiently guaranteed by its inventor, Mr. Adams:

Take one empty tomato can. Clense thoroughly. Fill with dry ashes. Close tightly, and attach to each end a piece of shoemaker's thread, three feet long. To the loose end of each string attach an unused postage stamp. Before retiring at night paste one stamp firmly on the end of the nose, the other in the small of the back, and leave them there all night.

The following stamps, obtainable at any postoffice, should be used:

For external ailments, 1-cent stamp.

For internal ailments, 2-cent stamp.

For nervous or mental ailments, 5-cent stamp.

The Oxyfakor should never be used with canceled stamps, as the cancellation interferes with the diaductive thermo-magnetism.

This treatment, being free, is not guaranteed to the patient. It is, however, absolutely warranted to cure any disease, ailment, or condition, internal or external, which can be cured by the Oxypathor, the Oxygenator, the Oxydonor, or any other of that ignoble company of tin-can swindlers.—Cleveland Medical Journal, December, 1913.

THE STERILIZATION ACT UNCONSTITUTIONAL.

A test case instituted at the instance of the Board of Examiners of the Feeble-Minded, Criminals and other Defectives has terminated in the Supreme Court declaring unconstitutional the act of 1911 providing for the sterilization of certain classes of delinquents enumerated in the act.

The court held that the law is in violation of the Fourteenth Amendment to the Federal Constitution guaranteeing equal protection of the laws to all citizens, and that it does not come within the proper police powers of the state. Although dealing with a subject the character of which precludes extended discussion, the opinion of the court handed down by Justice Garrison may probably be regarded as of first importance in laying down the underlying principles governing the liberty of individuals.

The case at bar was that instituted in the name of an unfortunate inmate of the State Village for Epileptics, upon whom the Board of Examiners ordered that salpingectomy be performed. This order, with the approval of the examiners, was certified to the Supreme Court in order that the constitutionality of the law might be passed upon before further action was taken. The complainant had been an inmate of the village since 1902, and for five years past had had no attack of the disease with which she was afflicted.—New Jersey Medical Journal, December, 1913.

PRINCIPLES WORTH READING AND STANDING FOR.

The College of Surgeons.

Twelve hundred practicing surgeons of the United States and Canada were admitted to membership in the American College of Surgeons at its first convocation, which was held in the gold room of the Congress hotel, Nov. 13th. The organization is patterned after the Royal College of Surgeons of England, and each member subscribed to the following pledge before being admitted as a member and presented with his certificate:

"Recognizing that the American College of Surgeons seeks to exemplify, enforce, and develop the highest traditions of our calling, I hereby pledge myself as a condition of fellowship in the college, to live in strict accordance with all of its principles and declarations.

"In particular I pledge myself to pursue the practice of surgery with thorough self-restraint and to place the welfare of my patients above all else: to advance constantly in knowledge by study of surgical literature, the instruction of eminent teachers, interchange of opinion among associates, and attendance on the important societies and clinics; to regard scrupulously the interest of my professional brothers and seek their counsel when in doubt of my own judgment; to render willing help to my colleagues and to give freely my services to the needy.

"Moreover, I pledge myself, so far as I am able, to avoid the sins of selfishness; to shun unwarranted publicity, dishonest money seeking and commercialism as disgraceful to our profession; to refuse utterly all se-

cret money trades with consultants and practitioners; to teach the patient his financial duty to the physician, and to urge the practitioner to obtain his reward from the patient openly; to make my fees commensurate with the service rendered and with the patient's rights; and to avoid discrediting my associates by taking unwarranted compensation.

"Finally, I pledge myself to co-operate in advancing and extending by every lawful means within my power the influence of the American College of Surgery."

"AN EXPERT'S COMPENSATION."

The Court of Appeals of Georgia holds that only when expressly provided by law can the privilege of a witness resist the demand of justice for the truth and the witness refuse to answer a legal question. A physician is competent to testify as an expert and no expert can refuse to testify because he has not been compensated or will not be compensated for his testimony. An expert testifying as a witness, has no greater privilege than any other witness.—(Dixon vs. State (Ga.) 76 S. E. R. 794.)

ALCCHOL.

In the September number of American Medicine, Abraham Jacobi calls attention to an editorial in the July number of that journal which refers to the latest views of alcohol as expounded by Ewald. It states that all theories to the effect that it is to be classed as a stimulant are about exploded. It is also asserted that "those who are always waiting for some medical oracle to speak can now come over without fear to the modern consideration of alcohol as a sedative or anesthetic." Jacobi begs leave to say that the explosion has not reached his ears. He believes that the time will never come when alcohol will no longer be used in illness, for there are conditions which absolutely demand the use of alcohol as a prominent part of medication. He does not care to class alcohol anywhere, and does not contest observations and experiments either on healthy or diseased men, and on animals. Indeed, he has great respect for experiments and observations in and out of laboratories. One of the most profitable laboratories, however, is the hospital and the private bedside. The virulent epidemics of diphtheria forty years ago, with sepsis and gangrene, were mitigated by his introduction of nasal irrigations and sometimes restored to final health by doses of alcoholic beverages. The incurable form with formidable lymph, body swelling, nervous prostration and excessive sepsis, is always a mixed infection, and in such cases antitoxin has early proved unsatisfactory. No mixed infection is amenable to the action of antitoxin. After sixty years of practice when he trusts in alcohol as a powerful remedy in cases of diphtheria and other sepsis, he may be credited with ample experience both in successes and failures extending over half a century. He cites numerous cases where alcohol was evidently the life saving agent, and asserts that no amount of whiskey will lead to intoxication when its effect is wanted

to combat sepsis, and repeats that no amount of alcohol will intoxicate a thoroughly septic person. He instances one case, that of a refined lady, who had typhoid fever fifty years ago. She was thoroughly septic, and took a quart of whiskey daily ten days in succession, with recovery, and not a drop since. He states that his cases have not all been cured as he belongs to the class that has to meet failure. He continues: "But I have seen what was considered to take a favorable turn. There are, in diphtheria, cases which are not influenced by antitoxin in small or big doses. That class of cases is not always hopeless when the doctor has hope and discrimination, and the courage to fight infection and to cheat the undertaker. I refuse to deal in theories. I cannot tell the cause of antiseptic action of alcoholic beverages when administered in sufficient doses. I merely refer to occurrences and observations extending over half a century and more. Let somebody else explain; meanwhile take the hint."—Cleveland Medical Journal.

"MEDICAL INSPECTION FAILS."

Under this caption the editor of the Christian Science Monitor delivers himself of a tirade against medical inspection of schools. Under ordinary circumstances it would be a waste of time to pay the slightest attention to anything that a Christian Science Monitor writes about medicine or the medical profession. The avowed doctrines of Christian Science preclude any reasonable discussion of such topics, and their rabid antagonism to science makes any argument superfluous. To look for logic in a Christian Science "Monitor" is like expecting reason in a maniac. In either case there is a distorted viewpoint with utter disregard of the proper relation of things; in either case, the subject lives in a contracted world of fancy, a world of his own making. But the editor of the "Monitor" evidently felt that he had a mission and that was to send what he considered a deadly missile into the very camp of the enemy—the medical profession. A marked copy of the "Monitor" containing the editorial was sent to every physician in the city and presumably in the country. Under these circumstances it may be worth while to analyze the missile and determine its constituents.

The simplest, the most rational attitude of Christian Science towards medical inspection of schools would be that of negation. Since there is no disease nor infirmity, but all is mental error, it is useless to look for things that do not exist. Such an attitude would be consistent and logic. However, logic is not one of the Christian Scientist's virtues, and the editorial referred to proves it. Read this:

"If medical inspection could be confined within sensible and justifiable limits, that is to say, if inspection could be limited to the very proper question of guarding against the spread of disease, it is not likely that there would be serious objection. But, unfortunately, medical inspection attempts to go far beyond these reasonable limits and immediately becomes impracticable and offensive. From the very nature of the

circumstances, physical examinations of school children, as at present conducted, are superficial and therefore useless. Wholesale and necessarily careless physical examinations accomplish nothing practically good and much that is to be regretted. No matter how much disease is discovered by the medical inquisition the health of the child is not improved thereby, for the reason that diagnosis is not treatment and unless compulsory treatment follows compulsory diagnosis no progress is being made toward the better health of the individual pupil."

Think of it: "If infection could be limited to the very proper question of guarding against the spread of disease," there would be no serious objection to it. Again, if the inspection were thorough instead of superficial as it is alleged to be at present, it would do good; and if treatment (why, compulsory?) would follow diagnosis progress would be made "toward the better health of the individual pupil." For some reason, the editor seems to take it for granted that "compulsory" treatment must follow diagnosis. Apparently, he has no objection to the diagnosis part of the inspection, if only it were thorough and were not followed by "compulsory" treatment. Well, why should there be any compulsion? Why should not the parents be educated to voluntarily seek treatment after the defect is pointed out to them? Of 802,837 pupils in New York schools in 1912, 184,907 were found suffering from pediculosis capitis. Should it take a squad of policemen to persuade the parents of these children that head lice is the kind of mental error from which the sooner rid the better? And should not these children be excluded from school to save the clean children from the vermin? Exclusion of the unclean was practiced even in Biblical times. During the same year 14,497 pupils were found suffering from trachoma, a most serious affection of the eyes; 33,875 from conjunctivitis, 4108 from ringworm, 10,332 from impetigo, 2,593 from scabies, 349 from favus and 122 from molluscum contagiosum—a total of 65,876 children affected with loathsome, highly contagious skin affections. (The "Monitor" calls these "trifling" defects.) How would our Christian Science friends like their children to be affected with unsightly, disgusting skin lesions? And who is competent to make a diagnosis of skin diseases? The teacher, the nurse, or a physician? This is equally true of other contagious diseases.

The charge is glibly made that medical inspection of schools has not decreased the incidence of contagious disease among school children. This is not so. In New York schools, for instance, communicable skin and eye affections have decreased from 120,385 in 1909 to 65,876 in 1912, or from 17.8 to 8.2 per cent. As to immediate results of school inspection we may mention the experience of Philadelphia, when for the year 1910 of 13,659 cases 9,452 were cured and 3,013 improved. One thousand and twenty-five children obtained glasses for defective vision, 249 was relieved of adenoids and enlarged tonsils, 85 sent to the country, 77 sent to the seashore and 319 were treated for defective teeth. In another Philadelphia report we find that from 89 to 97 per cent of the recommendations made to the parents of the defective children were acted upon and the defects reme-

died. Apparently no "compulsion" was required in these cases and treatment did follow diagnosis.

Admitting, as the "Monitor" does, that detection of contagious diseases is "very proper," why should not the scope of medical inspection extend to the detection of defective eye sight, diseased ears or adenoids? Children afflicted with these maladies are not only suffering and suffering cruelly from these defects, but they interfere with the instruction of the children who are not thus handicapped and who would make more rapid progress were it not for the laggards.

Another objection raised by the "Monitor" is that the medical inspectors are young and inexperienced, and therefore the inspection cannot be reliable. Granted. Well, why not have old and experienced inspectors? The only reason that young men are employed is that municipalities do not want to spend the money that would be sufficient compensation for experts. Incidentally, medical inspection of schools is being advocated by the older and the more influential members of the profession, the very ones who do not profit financially by the system. On the contrary, by thus furnishing employment to the younger men they actually create competitors—not a strictly business proposition, but this phase of medical practice is beyond the ken of the "Monitor."

And while on this subject, let us dispose of the accusation that the advocacy of medical inspection, which is merely a phase of preventive medicine, is actuated by sordid motives. "It is beginning to be seen, also, that the expected 'profit' must be translated in terms of dollars and cents, rather than in terms of increased public health," says the "Monitor." It is a damnable lie, and like the accusation of the ritual murder by the Jews in Russia springs from a breast full of jealousy and hatred. Even the layman is beginning to appreciate the fact that preventive medicine, as exemplified in the building of the Panama Canal, the eradication of yellow fever in the south, etc., is the glory and pride of the medical profession, that preventive medicine represents the service of the profession to mankind.

It is the old story. If a fellow cries "stop thief," you better grab him and turn him over to the police.

"Another objection is that all of the medical inspection now in force, is conducted by physicians who belong to one school of medicine. This has furnished ample ground for protest, from members of other schools, as well as from the laity. Naturally, these physicians proceed with their examinations from the basis of their particular medical theory, and this in the opinion of many, amounts to state medicine. There are those who ask why the state seemingly discriminates against all other medical methods, and prefers the allopathic school in all its appointments, and the inquiry naturally arises as to whether, by so doing, the commonwealth does not officially espouse allopathy."

A gentle hint thrown into the medical camp to stir up the internal dissension which the patent medicine interests are trying to create within

the profession. We know of no statute in any city or state that prohibits the employment of a homeopath if he is competent. Nor are we aware of any "particular medical theory" which would make the inspection by an allopath different from that of a homeopath. Homeopaths do serve on health boards, city and state and they claim their share in this grand work of preventing and eradicating disease. It is now conceded that the only difference between the two schools is in therapeutics or rather, drug treatment. All other branches of medicine, particularly preventive medicine, are the same in both. By the way, how comes it that a Christian Science publication should take up the cudgel on behalf of homeopathy or any other school of medicine? Is homeopathic medicine more acceptable to the Christian Scientist than so-called "allopathic?" A suspicious sort of friendliness!

To sum up, the position of the "Monitor" is this: Medical inspection of schools would be acceptable, provided, it is sensibly and justifiably limited to the "very proper" detection of contagious diseases, that it is not followed by compulsory treatment, that is made thoroughly, that it is conducted by old and experienced practitioners, and that no discrimination is made against homeopaths or members of other schools. Very good. In time, we might expect to see the "Monitor" carry a full page advertisement of Peruna. Why not? It already carries advertisements of dentists who presumably attend to the mortal errors in the mouths of the "Monitor's" numerous readers.—Editorial, Delaware State Medical Journal, October, 1913.

Scale of Fees Under the New Insurance Law in England.

Visit to patient at patient's house or attendance on patients at doctor's consulting rooms	62 cents
Special visit, in response to messages left between 10 a. m. and 8 p. m.	87 cents
Night visit, in response to calls received between 8 p. m. and 10 a. m.	\$1.25
Surgical operations requiring general anesthetic or case of abortion or miscarriage	\$5.10
Administration of general anesthetic	\$5.10
Setting of Fractures—	
Femur	\$5.10
All other fractures	\$2.50
Subsequent attendance at visit rates.	
Reduction of Dislocations—	
Hip	\$5.10
Others	\$2.50
Subsequent attendance at visit rates.	
Midwifery Fees. Minimum fee	\$5.00
Hypodermic injections or vaccinations	12 cents

—Iowa State Medical Journal.

SURGICAL CLINICS OF JOHN B. MURPHY, M. D.

Volume II, Number V, (October, 1913.)

The Surgical Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago, Volume II, Number V, (October, 1913.) Octavo of 174 pages, 52 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Published Bi-Monthly. Price per year: Paper, \$8.00, Cloth, \$12.00.

Among the worthy notables to attract attention in this volume is a clinic on "double inguinal hernia, Italian statistics and the technique of the Andrews operation" in such cases, which is thoroughly illustrated. Another on a subject close to the heart of every physician, almost irrespective of his field, is "appendicitis-differential diagnosis; perforations and treatment of general revolution in treatment as Hardly any subject of surgery has had such a general revolution in treatment as has the conditions incident to rupture of the appendix with its consequent peritonitis, and the falling or improved death rate demonstrates the intelligence with which surgeons, as a rule, are now handling each individual case. Murphy here demonstrates finely the differences in pus cases and the technic to be followed.

The volume is otherwise full of the good things too numerous to be noted in a short review. It will suffice to say that it is up to and abreast with the usual high standard of its predecessors. We note a talk on the cancer question by Dr. William L. Rodman of Philadelphia, and while his remarks are short they are pithy and to the point, decidedly. Dr. Murphy introduced him with the statement that he (Murphy) was a pessimist in the matter of cancer, while Rodman was an optimist. The volume is worth your while.

DISEASE AND ITS CAUSES.

By W. T. Councilman, A. M., M. D., L. L. D., Professor of Pathology, Harvard University; illustrated; cloth, 251 pages; Henry Holt and Company, New York, Publishers.

This is a book so plainly written that a layman may read it and grasp the facts set forth; at the same time a physician will find in it a most profitable inspiration to a grasp of the salient facts surrounding the supposed mysteries of disease and its causation.

The author prefaces the book with the statement that no argument or figures or demonstrations proving its statements are included for the reason that the reader is supposed to have a working knowledge of anatomy and physiology, and lack of space precludes their inclusion.

We welcome this effort of Dr. Councilman's and especially commend the little volume to the consideration of teachers and laymen who have the instruction of students and similar bodies as their work.

STAMMERING AND COGNATE DEFECTS OF SPEECH.

By C. S. Bluemel, Boulder, Colorado. Two volumes, cloth. Volume I, 365 pages; Volume II, 391 pages; price \$5.00; G. E. Stechert and Company, New York.

The subject of stammering is of occasional and rare interest to the physician. In this work Bluemel states that five years ago he began a systematic investigation of the subject and that as a preliminary, among other things noted, that the stammerer can often sing without difficulty, can speak well when alone, is often fluent when speaking in concert with others, can often pronounce fluently after the words are stated to him, that he can repeat a word that he has eventually stammered out, etc.; that one can stammer in thought as well as speech, that there are more male than female stammerers, that stammering is rarely acquired after the fifteenth year.

The author takes up the causality of the disease and in the first volume presents the psychology of stammering. Incidentally he takes to task the various systems of alleged merit, which have no merit and considers the meritorious systems in vogue. He records many of the systems of merit and those without it, the latter simply because they are "gold bricks that are daily sold by infamous fraternity of 'speech specialists'". stating that "these wretched systems and, indeed, most elocutionary systems must eventually become obsolete with the advancement of the psychological investigation of stammering."

The work seems to be a scientific consideration of the affection as a disease entity and should command the investigation of those so afflicted.

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Next meeting Oklahoma City, January, 1914.

Address all communications to the Secretary, Dr. J. W. Duke.

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No. 9

DR. CLAUDE A. THOMPSON, EDITOR-IN-CHIEF.

EXOPHTHALMIC GOITER CURED BY LIGATING ONE SUPERIOR THYROID ARTERY.

Leigh F. Watson, M. D., Oklahoma City.

The simple and conservative operations are steadily gaining favor in the treatment of goiter because of their safety and ease of application. A single or double ligation always benefits even though it does not cure every case.

It is interesting to note that practically the same degree of improvement is observed to follow the urea and quinin injection treatment; whether the results will be as permanent as those following ligation remains to be proven. Elsewhere I have reported in detail cases showing improvement in symptoms and gain in weight after the use of the injection treatment.

Operations on the thyroid should be performed under local anesthesia whenever possible. When it is impossible to use local anesthesia alone and a general anesthetic is necessary, the Novocain nerve-block of the operative field should always be employed. The advantage of local anesthesia lies in the nerve-block which completely isolates the brain from the field of operation. This prevents the shock and exhaustion of the brain cells, as first shown by Crile, which is largely responsible for the severe and often unexplainable reaction that frequently follows thyroid operations. Ligation should be preceded by several days' rest in bed while the operator gains the confidence of the patient. This eliminates much of the shock due to fear. One hour before operation the patient receives a dose of morphine or morphine and hyoseine, sufficient to allay restlessness and prevent psychic shock.

Case Reports—Mr. J. M., age 30, married, clerk. For past three years he has been subject to frequent psychic storms; during these attacks the

right thyroid gland increased two to three times its normal size, and the pulse mounted to 150-160 and the temperature rose to 103°-104° F. The pulse for the twelve months preceding ligation had never been below 130.



FIG. 1.—Showing the enlargement of the right thyroid gland. The left side is only slightly enlarged.



FIG. 2.—The local anesthesia infiltration is about two inches in length along the inner border of the sterno-mastoid, with its center at the upper border of the thyroid cartilage.

The exophthalmos was steadily increasing. October 1, 1912, the pulse was 135 and temperature 99° F. The enlargement was practically all on the right side, therefore only the right superior thyroid was ligated at this time. Ligation was done in the patient's home under local anesthesia.

The following day the temperature was normal and the pulse 90; the latter has steadily become slower until now, fourteen months after the



FIG. 3.—The superior thyroid artery is transixed at the upper pole with a mass ligature, as advocated by Crile. He believes it is more important to cut off the nervous communication with the brain than to shut off the blood supply to the gland. The wound is closed with a sub-cuticular suture of plain catgut. The exophthalmos is well shown in this picture.



FIG. 4.—Taken two weeks after the ligation. There is a noticeable recession of the exophthalmos, although the gland is still enlarged.

ligation, it ranges between 70 and 75. The patient says it is slower than ever before. He was back at his place in a grocery store two weeks after the ligation and has not missed a day since. He received ergotin, gr. 1,

with quinine hydrobromate, gr. 2, and thyroidectin, gr. 3, three times daily. He took this for two months.

He then noticed there were intervals of several days without the pulse rate increasing on exertion. During the third month he took the medicine about half the time, then stopped it entirely as all symptoms had disappeared.

The immediate improvement must be credited to the ligation. He received the same medical treatment for three weeks preceding the operation;



FIG. 5.—Taken six months after ligation. There is only a slight exophthalmos. The thyroid enlargement has entirely disappeared.

it was without effect on the insomnia, nervousness, exophthalmos, tachycardia, or psychic storms.

Two weeks after ligation both thyroids began to enlarge symmetrically. This gradually increased for six weeks, and for a short time the patient was unable to wear a collar; but the nervousness, insomnia, and psychic storms had disappeared and the tachycardia and exophthalmos were rapidly improving. In the third month the enlargement began to subside and within three weeks had entirely disappeared and the gland assumed its normal size.

ACUTE SUPPURATIVE OSTEOMYELITIS.

R. V. Smith, M. D., Guthrie, Okla.

The title, "Acute Suppurative Osteomyelitis," carries with it a complete definition of the disease, meaning suppurative inflammation of the marrow and calcified structure of bone.

The traumatic or osteomyelitis attending, or following, amputations, gunshot wounds, compound fractures, etc., has, of course, been recognized for centuries and looked upon as a natural sequence during the pre-aseptic era; but the spontaneous variety—and it is this that we wish to consider, when studied from the standpoint of modern pathology and etiology—must be looked upon as a disease of which comparatively little was known until recent years. It was only during the latter half of the nineteenth century that the affection was recognized as a distinct disease entity and the correct nomenclature applied.

Chassaignac first used the term osteomyelitis in 1855, and reported four cases. Since this time various writers have added valuable contributions to the literature, but it remained for Pasteur to discover the true infectiousness of the disease when he demonstrated that the germ causing it is identical with that found in boils, hence the name "furuncle of bone."

Standard text-books on surgery as recent as 1875 speak of suppurative osteitis and suppurative periostitis, but nothing of acute osteomyelitis. "**Primary suppuration in bone begins in the medullary tissue**, hence it is not correct to speak of suppurative osteitis. Primary suppurative periostitis is an exceedingly rare affection, consequently **suppurative osteomyelitis** must be considered as the most frequent of all acute inflammatory diseases of bone."

It is because of the frequency of the disease, its rapid and devastating progress, the many mistaken diagnoses, or diagnosis, if made at all, too late, even though a fatality be averted to hope for good anatomic or functional result although proper surgical treatment be accorded the case, that induced the writer to submit this paper for discussion.

Predisposing Causes. The disease is one of childhood and early adult life. Fifty per cent of all cases occur between the ages of 12 and 17 years and as between sexes, we find three boys to one girl affected. This, no doubt, can readily be ascribed to the fact that boys engage in sports and labors of various kinds that render them much more liable to exposure, slight injuries, etc. The disease is found to follow a slight injury so quickly as to suggest this as one of the predisposing causes. Exposure to wet and cold, and fatigue are factors, as also is a preceding attack of some infectious disease. Typhoid fever, pneumonia and the exanthemata—scarlet fever and measles—are all known to have been followed with an attack of osteomyelitis.

Streptococci have been found in the bone marrow of nine out of thirteen cases of scarlet fever, and staphylococci have been found in the marrow of nine out of thirteen cases of diphtheria. These, no doubt, are the cases that olden time doctors and many of the laity still have in mind when they speak of a case of typhoid fever or pneumonia or other infectious disease as having "settled" in this or that limb.

The immediate cause of the disease is the presence of some one of the many pus-producing germs. In this, the staphylococci are found in the larger percentage of cases; streptococci follows with a certain number; pneumococci have been found in pure culture; the typhoid germ, gonococci and grippe bacillus each contribute their share of cases.

The mode of infection is always through the blood stream, and while the attack is often times preceded by a boil, superficial abscess or some other localized infection, yet cases do occur in which no such nidus of infection can be demonstrated. Knowing, as we do, that the tonsil is the source of many cases of glandular infection rheumatic arthritides, etc., the writer is firm in the belief that the tonsil is also the avenue of infection in many cases of osteomyelitis.

Pathology. It is quite generally recognized that the disease always begins in the diaphysis of the long bone, but near the epiphyseal line. Never does it begin in epiphysis, but the seemingly epiphyseal cases are those in which there have been an early perforation of the epiphyseal cartilage.

The red marrow filling the spaces in the ends of the bones is made up largely of embryonal tissue. The blood supply comes through the metaphyseal arteries or branches of the nutrient artery and are all terminal. The capillaries in the spongy bone are four times larger than the blood vessels leading to them, thus causing a stagnation of the blood. Hence the thought that an embryonal tissue supplied by terminal vessels carrying a retarded blood current is sufficient reason, in the author's mind why the infection always occurs in this part of the bone.

The germ having found lodgment, toxins are thrown out which cause necrosis of the bone marrow and a very rapid extension throughout the medulla follows. If the primary focus of infection is deeply seated, the whole of the medullary contents may become involved before the process appears on the surface of the bone. In other cases the infection is rapidly transferred to the exterior with very little involvement of the marrow. The method of periosteal infection is evidently through thrombosis of the metaphyseal vessels very much in the manner that a superficial infection of the scalp is transferred to the interior of the skull through the emissary veins. It is worthy of note that the periosteum first involved is that immediately over the epiphyseal end of the shaft and never in the middle of the shaft.

The pus may continue to burrow and the entire shaft of the bone denuded of its periosteum. In these cases superficial necrosis of the

shaft may occur, while if the endosteum be destroyed, death enmasse of the entire shaft may occur and epiphyseal separation of one or both ends of bone will be the result. If, however, early perforation of the periosteum occurs, the disease may not be so widespread in extent and the area of necrosis may involve only a small part of the cancellous end of the bone or, at least, the resulting sequestrum be much less in extent than the entire shaft.

Following the evacuation of the subperiosteal abscess, the reparative process begins and the periosteum soon begins the formation of an involucrum which with the enclosed portion of dead bone or sequestrum, subacute and chronic abscess results. This is the condition that usually exists when the surgeon is called into the case.

This gross description of the pathology is all that is necessary to subserve the purpose of this paper, although a more minute study reveals many interesting features.

The symptomatology of acute osteomyelitis is usually very distinct. The attack is often attended with a chill, followed by high temperature. Pain at onset and ordinarily located in the joint, thus the patient complains of pain in shoulder, elbow or wrist; or, if lower limb be involved, pain may appear in hip, knee or ankle. The character of pain is significant. Not of the acute lancinating type, but of a dull boring character and none the less severe. The temperature is usually high, reaching 105 degrees; tongue coated and parched; skin hot; pulse rapid. Swelling is not usually an early symptom and when it does appear may be too late to be relied upon in establishing an early diagnosis. The same applies to tenderness on pressure. Light percussion over the affected part may determine early tenderness. Extreme prostration and evidence of a marked degree of toxemia soon manifest themselves and in grave cases the patient may rapidly sink into a comatose condition.

In making the diagnosis of acute suppurative osteomyelitis the disease must be differentiated from acute rheumatism, acute tubercular disease of joints and typhoid fever. In acute rheumatic fever, the rise of temperature is more gradual; tenderness and swelling usually appear at the very beginning of the trouble; movement of the joints cause excruciating pain very early, while in osteomyelitis, movement of the limb may not alter the character of pain. But the most important points in making a diagnosis are that rheumatism is exceedingly rare in children and never does rheumatism confine itself to one joint.

Tubercular disease of joints can usually be eliminated by taking a careful history of the case.

Typhoid fever is quite always preceded by a prodromal stage and attended by gradual rise of temperature. Widal test becomes positive too late in typhoid to be of any value in differentiating osteomyelitis.

Differential blood count should always be made, as osteomyelitis shows high leucocytosis and high differential. History of preceding illness

or slight injury or exposure to wet and cold are all of value. Tapping on bone in long axis of limb sometimes causes pain at point of infection and percussion over limb is of more value than pressure in eliciting tenderness. Upon the prompt correct diagnosis depends the success or failure of the treatment, and the difficulty in making a diagnosis is no excuse for the many failures to do so.

With the possible exception of appendicitis, there is no disease in the whole domain of surgery in which prompt radical treatment is so necessary for the ultimate recovery of the patient as in osteomyelitis. Not being satisfied with drainage of abscess of the soft parts, or a sub-periosteal abscess, drainage of the medullary cavity must be established. If, in the very early stage, all necessary may be accomplished through trephine opening, but if the infection has involved the marrow of the shaft, a groove must be chiseled out to full extent of the suppurative process, even though the entire shaft be included. The cavity may then be wiped out, but should not be enretted, as this will destroy endosteum that may not yet be devitalized. By following this treatment and maintaining good drainage, recovery is usually good and may be accomplished in a few weeks.

In a certain number of cases, pus will be found beneath the periosteum the bone not seemingly involved. In these cases do not hesitate to trephine and explore, for primary suppurative periostitis is so rare as to be entirely disregarded.

LEUKAEMIA

W. E. Stewart, M. D., Guthrie, Okla

Definition:—A disease characterized by a permanent increase in the leucocytes of the blood, the name "Leukaemia" is applied to those morbid conditions in which the leucopoietic part of the blood-forming tissues is affected.

Corresponding to these two entirely separate tissue systems, the myelogenous and lymphatic, we also differentiate two forms of leukaemia which requires special consideration. Going back just a little into the history of such cases, we find that formerly three kinds of leukaemia were described—the splenic, lymphatic and medullary—but we now recognize that the leucoblastic hyperplasia may begin in any part of the blood, glandular system, marrow, lymph glands, and probably in the spleen. The difference in the types of the disease depends upon the dominance of the lymphoid, or the myeloid process, so that we now divide the cases roughly into two great groups as stated above.

The myelogenous (the most common form of the two.) Etiology: occurs more frequently in males than females. It is not more frequent in malarial regions. Ages: Usually between the age of thirty and fifty.

Some writers claim that many of these patients have a tendency to hemorrhage, but Osler says as a rule the disease appears in fairly healthy persons. It may occur during pregnancy, and Dr. Cameron of Montreal reports a leukaemia patient having passed through three pregnancies, bearing on each occasion a non-"Leukaemia child." Acute diseases—typhoid, malaria, syphilis, and influenza—seems sometimes to be the existing cause.

PATHOLOGICAL ANATOMY.

There may be remarkable distinction of the portal, cerebral, pulmonary and subcutaneous veins. The blood itself is usually clotted and the enormous increase in the leucocytes gives a pus-like appearance to the coagula. It has been noticed in more than one case of this kind that upon opening the right auricle the observer thought he had cut into an abscess.

The coagula have a peculiar greenish color, somewhat like the fat of a turtle. Sometimes this is so intense as to suggest the color of chloroma.

The alkalinity of the blood is diminished. The fibrin is increased; the spleen is greatly enlarged in the myelitic form. The capsule may be thickened and the vessels at the hilus enlarged. I saw one case in the hospital of the myelitic form, where the spleen was so enlarged that it came within one half inch of the crest of the ilium. Osler states that in some cases there are leukaemic enlargements in the solitary and agminated glands of Peyer.

Anemia is not a necessary accompaniment of the disease as the subject may look well and healthy.

BLOOD EXAMINATION.

The striking change is an increase in the colorless corpuscles. Counts of white cells above 500,000 per C. M. M. are common and may rise above 1,000,000 per C. M. M. There are instances on record where the white cells have exceeded the red corpuscles. The increase is in all the forms. The polynuclear neutrophiles make up from thirty to fifty per cent, both the small and the large lymphocytes are increased; the eosinophiles and the mast cells show both a percentage and absolute increase. Dr. Billings of Chicago, reports that the blood examination in one case showed small lymphocytes 12%; large 24%; eosinophiles 8%; myelocytes 33%. Normoblasts and megaloblasts are common. The red cell count may be normal at first, but sooner or later anemia comes on and the count may fall as low as 2,000,000 C M. The color index is usually low. The blood platelets are increased Charcot-Leyden crystals may separate from the clots and the hemoglobin shows a remarkable tendency to crystallize.

SYMPTOMS.

The onset is insidious and as a rule the patient seeks advice for progressive enlargement of the abdomen. I saw a case that came into

the hospital to be treated for bloating of the stomach. Bleeding at the nose in these cases is very frequently noted. Pain and tenderness in the splenic region is common, though the progressive enlargement may be painless. The gradual increase of the spleen is the most prominent feature in most of these cases. The pressure of the enlarged organ may cause distress after eating. I noticed this in one of the cases I saw in St. Anthony's Hospital, and this young man wore a large wide belt next to his skin. He said that it tended to hold the spleen up and in that way gave less pain. Shortness of breath, high pulse, 100 to 120 per minute. Pulse usually higher in the afternoon. There is always that tired feeling; the patient will tell you they grow weaker at times, then in a day or two appear a little stronger. Loss of weight is common. There are rarely any cardiac symptoms. Billings reports five cases; in all five the heart and lungs were normal. The apex beat may be lifted an interspace by the spleen. Toward the close edema may occur in the feet, or general anasarca.

Bleeding at the gums is not rare. Nausea and vomiting are early features in some cases, and diarrhea is, too, a troublesome feature, often proving fatal. Ascites is a prominent late symptom, developing probably due to the splenic tumor. The nervous system is not often involved. The urine in most all cases shows no constant change. The temperature may range from 102 to 103. The two cases that I saw in the hospital ran a temperature resembling that of a pulmonary T. B. case. Every afternoon the temperature would come up from 101 to 102, and the following morning be 98½ to 99. Some days, even in the afternoon, they would have very little temperature, and the patient would seem brighter and appear more hopeful.

LYMPHOID LEUKAEMIA.

This less common form occurs less frequently in females. There are two varieties—acute and chronic. The acute form is claimed to be the most terrible of all blood diseases. Among the early symptoms are angina, often of an ulcerative character. Ecchymosis occurs early or there is profuse nose bleeding. Anemia is an early symptom; swelling of the glands of the neck and other parts are noticed. Fever may be marked 103 to 104. The real nature of the disease may not be detected until very late. Death in these cases has occurred as early as the sixth day.

In the chronic forms the disease is very different, usually pretty well along in life and beginning with a general adenopathy. At this stage the spleen is slightly enlarged, and anemia gradually comes on, maybe six months or a year though before it is detected at all. In this form pruritis is common; rarely any fever. The skin is sometimes pigmented.

Examination of the blood shows it is thick and sticky, hard to spread on a slide; lymphocytes in these chronic cases markedly increased, which are very often as high as 85 to 95%. There are two chief forms, the large and small mononuclear.

DIAGNOSIS.

As was stated before, recognition of the acute form is very often difficult. Of course, if the blood is examined and the glands are enlarged suspicion is aroused. The chronic form is more easily recognized. An enlarged spleen with a moderate amount of anemia suggests a blood count, upon which alone the diagnosis of these cases after all depend. One has, too, in some cases of sepsis, thirty to forty thousand leucocytes, your history and general symptoms, with marked increase in polymorphonuclear will help to differentiate.

NASAL POLYPUS.

Dr. C. E. Orelup, Enid, Okla.

Myxoma, myxofibroma, or nasal polypus, is usually a pedunculated tumor which more often grows from the middle turbinate body, the uncinat process of the ethmoid bone, or the ethmoidial cells, though it is frequently present in the maxillary, frontal and sphenoidal sinuses.

It is still a disputed question whether the polypus is the result of a diseased condition of these parts or that the polypus is the cause of the diseased condition. I believe, after long and careful observation in practice for the past fifteen years, that the polypus is the result of diseased condition of the parts mentioned. The polypus is of whitish mucoid and gellatinous-like in appearance. Sometimes small blood vessels may be seen coursing over the surface. It is very sparingly supplied with nerve tissue. The polypus is really a myxofibromata.

Symptoms of nasal polypi are often complex on account of the nasal obstruction and the associated inflammation of nasal tissue and sinuses which usually coexist. The symptoms depend largely on the location of the tumor and number and size of same. If much pedunculated and down in the lower and more roomy parts of the chamber, they give rise to the sensation of a movable foreign body. If large of size or of great number, there is obstructed nasal breathing and a peculiar nasal or muffled sound to the voice owing to the loss of nasal resonance. There may be an associated cough and asthmatic breathing. The asthmatic breathing may be of the most distressing kind and is so nearly always present that it is always a wise plan to make a very careful examination of the nose of any patient with asthmatic symptoms. The sense of smell may be lost if the tumors are located in the olfactory region.

Examinations for nasal polypus should be done by the use of the head-mirror, nasal speculum and blunt probe. It may be necessary to use a little cocaine and adrenalin chloride, but if adrenalin is used one must

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be very careful lest he mistake the blanched tissue to be that of a polypoid nature, especially if the soft tissue over the turbinates be thickened.

Prognosis and Treatment. The prognosis is good if properly treated. Right here lays the crux of the whole matter, as the nasal chamber seems to be an open field for every Tom, Dick and Harry. It seems to be the delight of the general practitioner, if he looks up in a patient's nose, to reach up with some kind of forcep and tear away something, then show the patient what he has removed. There is no part of the human anatomy so little understood as to the normal condition as the nasal chamber. One can fix no exact statement as to what the exact normal condition must be, and only by long and careful observation and examinations of a great number of noses can one form a picture of what he might think to be a proper condition of this chamber. As there are no two chambers just alike, in all respects, one must use very careful judgment in his operations on these parts.

If the polypi be located along the middle turbinate, it may be necessary not only to remove the polypi, but also a large portion of the turbinate body. If the polypi spring from the ethmoidial cells, these cells may have to be thoroughly curetted out or removed entirely.

Unless these operations are done carefully and thoroughly, your patient will be but temporarily benefitted. This is just the condition of affairs we meet with every day. A patient comes to the office suffering from nasal polypus. He says he cannot stand it to go on the way he is, but he has been operated on so many times and the growths always come back; that he is discouraged and well he might be, because he sees no hope ahead. I say to these patients, when asked if I can promise them a cure—"Yes, if you will do and let me do just what I think best." I tell them they will need to return for observation every three or four weeks for one year after the first operation, as I do not hope to get all diseased tissue removed at the first operation, but at any subsequent examination I remove any suspicious tissue and cauterize the points of removal. The golden law of surgery holds good in the nose as well as elsewhere—remove no more healthy tissue than necessary.

As to the instruments used in these operations, I prefer the snare. There may be times when one can use some form of forcep to advantage.

DISCUSSION

Dr. McHenry: There is one question in nasal polypus I do not believe the Doctor mentioned: As to whether nasal polypi are always caused by sinusitis. I believe that the teachings of most of the American authorities is that it is. The Vienna school teaches that it is not. I have removed polypi where I have been unable to find sinusitis, and I have raised the question to see the opinion of other men. I have had cases where I was not certain which was the primary condition—the sinusitis or the polypus.

Dr. Rutland: Speaking about the sinusitis, it has been my experience and in the majority of my cases there was no sinusitis. I would always

look for it, but it has been my experience in the majority of my cases of polypi, there is no sinusitis infection at all.

Dr. Jenkins, Enid: I did not hear the paper read, but from the remarks of the gentleman that preceded me I get a little insight as to what the paper was. I have treated a good many cases of polypi and I cannot recall that I ever had one that had sinusitis. I have had some cases of sinusitis that had the polypi. As to which one arises first, I was always inclined to believe the polypi would by obstructing the drainage cause the sinusitis, more than the sinusitis would cause the polypi.

Dr. Thompson, Muskogee: I want to thank the doctor for the paper. I have seen cases that had sinusitis that did not have the polypi when first opened up, but at a later time at recurring attacks the polypi would show up showing in those cases that they did develop after the sinusitis, but I believe they can exist with or without it, and I know they do at times.

Dr. Cook, Tulsa: I agree with Dr. Thompson. You may find it with or without. I have a case now that has sinusitis and also has the polypi. I removed last year, I think, thirty-five or something near that number, just before I went away. And while I was gone some one opened the ethmoid. The man came back recently and I found some more and removed those, and I am getting ready to operate on the antrum. I have had several cases where there was no sinusitis at all; but I think it is just as liable to occur with or without—either one can occur with or without the other.

Dr. Jenkins: Which one in your opinion is primary?

Dr. Cook: I think the polypi is more often the cause of sinusitis.

Dr. Orelup: I am very glad the discussion was brought out. For a good many years I was of the opinion that polypi was more of the cause, but when you find so many of these recur you must know we should go deeper to find the cause. After I commenced looking into these more and opened up the cells I have had very little trouble about their returning. I do not like to operate on a patient for that and have just one operation. I think it is the most unsatisfactory thing I could do. There are sometimes so many of them you cannot hope to remove them all at one sitting. It is often you cannot prevail on a patient that comes from a distance to come back as often as he should. I remember one, a few years ago, one had been removed from the same location twelve years before by a doctor. I removed one that was as large as a large English walnut or larger. I only saw the patient one time. Perhaps it will recur. What I want to bring out more especially is that these things are considered and treated by the general practitioner in such a manner that it is liable to discourage the patient by having them simply torn away and then they come back. It is a case that ought to be kept under observation.

*ETHICS.

By Geo. A. Morrison, M. D., Poteau, Oklahoma.

In this day and age of the world, conditions governing business of commercial character, as well as professional careers, have undergone a material change. As we grow older we seem to be more grasping in our disposition to get the almighty dollar, or to gratify an ambition to be called the leader in the volume of business done in our community.

Is it not well to call a halt on ourselves and see where we stand? Are we allowing ourselves to be dominated and controlled by a spirit of selfishness? Are we forgetting the old adage: "As ye would that others should do unto you, do ye even so unto them?" Are we not in danger of accepting as our motto the new version of the aforesaid adage: "Do unto the other fellow as we think he would do unto us, but do it first?"

In the practice of the various professions, an element of petty jealousy creeps in, if we do not watch ourselves sharply. It may be found existing in all professions—the ministry, music, law, medicine and what not. A disposition on the part of the minister to have the finest appointments, the largest audiences, to be looked on, if you please, as being "IT" in his profession. The same statement applies to the lawyer, the dentist, the musician, and, in some remote localities, to the doctor as well. Confining further remarks to the profession of medicine, to which we are all devoted, we find this condition more or less prevalent.

The millenium will certainly be near at hand when a bunch of average doctors in any given community dwell together in peace and harmony in all matters pertaining to the practice of their profession. Is there any sane reason why these things should be? Is the indulgence in a sort of petty jealousy in keeping with your idea of the characteristics which go to make up an honest man in whatever profession we may consider? Can a man, so warped by petty jealousy, be endowed with a broad mind and be capable of rendering his pupil, client or patient the best that's in his makeup? Will not his judgments, his demeanor, be more or less warped by a secret thought in his mind as to what the other fellow would do or say when brought face to face with the same circumstances?

We are all more or less familiar with the so-called code of ethics which is supposed to govern the practice of medicine. It may be well said, however, that none of us are over familiar with it. By its teaching we have been made to recognize that which is right, professionally, from that which is wrong. We have been taught that it is not right to speak or insinuate illy of our professional neighbor behind his back. Right here I want to say I am inclined to believe—in fact I refuse to think otherwise—that there is not any one within the sound of my voice who would be so

small. We know by the teaching of this same code of ethics that it is wrong to "butt in" on the other fellow's patient. We know it's not ethical to solicit the patronage of the public either by advertising in newspapers or by personal conversations. To advertise ourselves to the public either by publication or by personal conversation as the best read, most up-to-date and most successful physician in the community, brands us as egotistic and self-conceited and is liable to place us under some very embarrassing circumstances. We know these things, I say, and yet I am sorry to have to state that in other localities than ours I have heard of men doing these things. We know it's not ethical to cut prices, to do work along certain lines for less than the universal fee simply in order to keep the other fellow from getting it. By observation we also know that the man who allows himself to do these things belittles himself in the eyes of the profession at large, and is inevitably the loser in the end, both professionally and financially.

It can but be the opinion of all thinking men in the profession of medicine that he who does these things in order that it may be said of him, "He does the largest practice in his community," is utterly ignorant of the tenets of the Golden Rule, or wilfully disregards its teaching, and is lacking in moral tone. The broad-gauged medical man may differ in matters of opinion as regards the treatment of his patient, with his neighbor doctor. Aye, but in a spirit of fairness and honesty as between man and man, in such a way as that the public is not led to disparage the profession. He confines his arguments of difference to a discussion with his professional neighbor, and when such question of difference has been threshed out either as between the persons directly interested, or in the meetings of the medical society, if you please, the public is none the wiser, but possibly has been benefitted by settlement of the question of difference which has been under consideration.

The profession of medicine (I say it with all due respect to that of the ministry) is one of the highest, broadest and most far-reaching we know of, and its devotees should be actuated by the highest moral principles in whatever they do. The standing of the medical profession in the eyes of the public is and will continue to be what the doctors make it.

In a former paper I said: He who commercializes his profession does not succeed in the fullest sense of the word. Do not misunderstand me. I believe the doctor should be paid, and **well paid**, for his legitimate work. He is entitled to the best in the land, provided he is an earnest, conscientious worker for the physical welfare of the people, actuated by that high sense of medical ethics founded on the Golden Rule, which draws to him the admiration and esteem, not only of his patients, but his brother physicians. But, if a man practices medicine solely for the dollars he may gain therefrom, he becomes dwarfed in his intellectual attainments and finds himself doing, unconsciously perhaps, the most unprofessional things short of criminality in order that he may have it said of him: "He does

the biggest practice." Every man, no matter what his business, owes it to himself to do his best; owes it to his family and to the public, but not solely in the sense of money-getting. There are other things than money in this life worthy of our consideration. I take it that if there is in us at all that innate principle of right as between man and man, all the code of ethics we need for our government is the Golden Rule. When we guide our professional lives along these lines, we will have the living for ourselves and families, and with the exercise of a reasonable degree of business judgment, will be able to provide for the proverbial rainy day; and over and above all, when our work has been finished, when we have laid aside for the last time our hat and gloves, we can sit down to a well-earned rest, conscious of having done the square thing in our professional career. And when we clasp hands with the gate-keeper who guards the portals of the beyond, it will be said of us by profession and public: "He was square."

***WHAT DOCTORS OWE TO EACH OTHER.**

By F. L. Watson, McAlester, Okla.

In explanation of this rather unusual paper, I desire to explain that the program as outlined by the post-graduate course of the American Medical Association bulletin having been completed, it was moved and carried that our weekly meeting be devoted to the furtherance of our mutual interests, and as a punishment for fifteen years of some kind of relations with my fellow doctors, this subject was inflicted upon your humble servant. In order, I presume, to more forcibly impress me that I was to be properly chastised, the society voted to have it filed with the secretary for publication. Hence the reason for it being imposed upon the readers of our Journal.

I desire to be understood to have reference only to the legitimate, honorable physician, the man who does not commit those blatant, flagrant deeds, savoring of quackery and commercialism, the man who is not willing to give an eye for an eye and a tooth for a tooth, etc., and who feels piqued and wounded at some unkindly cut, and retaliates by striking back. Let's "cut it out." The time is not far distant when the man who abuses another will be ostracised by both profession and public.

Gentlemen of the Pittsburg County Medical Society: I have enjoyed greatly the remarks which I have had the pleasure of listening. Within their scope are many things by which I will profit. While each man has his personal opinions, there are many things which must be classed as "specifics," and which we all must take.

My remarks this afternoon upon the inter-relationship of doctors and their obligations to each other will in effort be general—sometimes cen-

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surings, sometimes lauding, but all meant in sincerity—with personal malice toward none, good will to all, the best of feeling and kindest interest in the mass collectively. If I enumerate one of the several mean things which I have done, and of which perhaps some of you have narrowly escaped being guilty, please do not hold a personal feeling against me, but reflect that these remarks are intended to promote a kindlier fellowship, a better spirit, as the Good Book says: "These things I command you: Love ye one another."

I shall speak in plain, unvarnished English of only a few of the more superficial efforts at back-biting with which we come in almost daily contact, and without which we could get along so much more agreeably, and which are so foolish and unnecessary. When you meet a man in public whom you know to be capable, upright, honest, conscientious, and a gentleman, don't ignore him by saying: "Howdy do." It is just as easy to say, "Good morning, Dr. Jones." Don't blaspheme him and disgrace yourself by bawling out: "Hello, Dock!"

Don't delude yourself by thinking that if you ignore a man, that it will not react. The public hears it, the public sees it, and the public pays heed to it, too. We must lend each other mutual support. Don't, when you see a man working his head off, for some ne'er-do-well, laugh in your sleeve that there are more suckers than yourself. Tell him in a kindly way. There is no time to collect like right now. Make him aware of his liability to lose, and more often than not he will get his fee, and will gladly return you the favor. When you have some ease along the line of which you have paid little attention, or which you hesitate to undertake, don't be so jealous of your reputation that you will not refer it to some friend whom you well know has devoted much hard work to that particular branch. Take it to him. One man cannot cover the entire field. Give your patients the benefit; help your friend to get his. You will not be injured; your reputation will not be jeopardized; you will be appreciated by your doctor friend, and respected for your breadth of manliness by your patient.

Don't, when you are called to replace another doctor in a case, hear some old woman say: "That old Dock Jones don't know anything. Why, he didn't give that pore chile nothin' but a dose of orl, and tell me to give him a bath." When you examine the patient you will probably find that the doctor was right, especially about the bath. Be man enough to say so; support the other man if he is right. You will both be better off. Sometimes this: "Dock Brown said he had the tonsilitis, and I don't believe a word of it. He don't know what he is talking about." Then silence—awful silence—absolute acquiescence. "Oh, yes, we'll fix him," thereby suggesting that your predecessor in the case has been, was and is a jack-ass, and an ignoramus, and you—oh, yes, you, me, the "Le Bon Dieu." The probabilities are that we are dealing with a dead-beat, we abuse each other, and our patrons abuse and laugh at both.

When we learn that a man has abused our patronage, don't hastily brand him as unethical, as a quack. Wait until you see him (he may have been deceived), then tell him just as frankly as you would have told him had you discovered that you yourself had been misled, and had infringed upon his rights. Good understanding and right tends to lessen those gaps of disrespect which should never exist.

I am not going to quote or refer to the code of medical ethics. We do not need medical ethics. A man should learn that at his mother's knee. It is embodied in these three words: Simply do right. When we have stolen a patient, or have done wrong, we know it. Have you ever seen a doctor take a patient to some man, presuming a specialty, and heard something like this: "Good morning, Dr. Little. Whom have we here?"

"Dr. Magnus: This is Mr. Sick."

"Oh, yes, Dr. Little, what is the matter with Mr. Sick?"

"Well, Dr. M., Mr. Sick has appendicitis."

"Well, well, then, Dr. L., we will put Mr. Sick on the table and see—yes, we shall see. Climb up, Mr. Sick." Thump, thump. "We will find out what is the matter with Mr. Sick, Dr. L., and see what we will have to do for him. I examined a patient for Dr. Tiny from Blanktown yesterday, and found he didn't know the first thing that was the matter with the man. You are quite right, Dr. Little—Mr. Sick has appendicitis. I will operate him in the morning at 11 o'clock. I have seven other operations to do before this one, but I will get to it as soon as I can. Good morning, Dr. Little; good-bye, Mr. Sick. I will see you in the morning at my hospital, Mr. Sick."

Is this right; is it fair? You have all heard it. Dr. Little knew what was the matter with his patient. He only wanted confirmation for his patient's mental gratification—support for his own ability. Did he get either? Was this right?

Be honest, be just, and, above all, be fair. Don't take advantage—the mean advantage you hold over your fellow by reason of your own personal location or surroundings.

Now, one more don't, and I will close. Don't imagine you are the only doctor on earth or that you ever will be. From the days of the ancient Egyptian Hen Medic Isis, to Aesculapius, to Hippocrates, on to our time, there have been doctors. We are well supplied today, and, judging from the grind of our present-day medical colleges and reference to the October Oklahoma birth rate, there is no visible famine in sight.

Don't be scared to death because some new doctor moves into your field. Really, he is human and humanity is heir to many ills. Our work as a profession is only in its infancy. There is room for all. Treat him courteously, kindly; impress the public that you respect the fact that he is a mutual toiler for their benefit, that he has traveled the same hard route of preparation as have you yourself. If we respect each other the public

must respect us, and hold us in as high esteem as our individual characters acclaim. **It is up to us.**

There is one more point and I am done—that is, the relation existing between the brand, new doctor, with the ink barely dry on his diploma, and the seasoned veteran, wont to refer to each other as “Old antiquated fossil” and as “Embryonic Pills.” The old doctor should remember that the young one with his latest theory, fresh from the halls of learning, can tell him things long since forgotten, or perhaps new points missed by him in the stress of business, while the younger one should respect his grey-haired associate and realize that the ripe experience gained by years of toil may be his for the asking. The only price asked is due respect, courteous greeting, or a kindly smile. That the old, antiquated fossil has seen the tears of sorrow and of sadness, when the cold hand of death had defeated him, and again has heard the joyful voices and seen the smiles of happiness and gratitude when success rewarded his efforts. Who but he knows the trials, the labor, by night and by day, by shine and by rain?

All his experience he gladly gives us, asking no other recompense than the respect and kindness we owe to him. Is he not, then, entitled to our most free and ready regard, respect, esteem and support? I know of nothing more appropriate to cover this duty to each other than the beautiful poem, “Solitude,” by Ella Wheeler Wilcox. Let us then greet each other with a smile.

Laugh and the world laughs with you,
Weep and you weep alone,
For the sad old earth must borrow its mirth,
But has trouble enough of its own.
Sing and the hills will answer,
Sigh—it is lost on the air;
The echo bounds to a joyful sound,
But shrinks from voicing care.
Rejoice and your friends will seek you,
Grieve and they turn and go;
They want full measure of all your pleasure,
But they do not want your woe.
Be glad and your friends are many,
Be sad and you lose them all;
There are none to decline your nectared wine,
But alone you must drink life's gall.
Feast and your halls are crowded,
Fast and the world goes by;
Succeed and give, it will help you live,
But no one will help you die.
There is room in the halls of pleasure,
For a large and lordly train—
But one by one we must all file on
Thru' the narrow isles of pain.

TYPHOID FEVER WITH PARALYSIS AND GANGRENE.

Dr. A. G. Hughey, Dewar, Okla.

I want to report a case of typhoid fever complicated with paralysis and gangrene.

Myrtle M. was seen by me August 8th. She had been sick ten or twelve days previous to this time. She presented the clinical symptoms of typhoid fever and it was so diagnosed. For two weeks the fever pursued an ordinary course of a moderately severe typhoid; daily temperature ranging from 101 to 103½. During this time there was no stupor or delirium. The little girl was restless at times and very irritable. I attributed this irritable condition to a pettish and spoiled disposition. In fact, I counted her hysterical. She actually presented many hysterical symptoms. She would raise up in bed, throw herself back and pretend to be about to fall off the bed. She would call for her father and continue to call him after he had come to her. I am sure she recognized him, for at times she would laugh and talk in a perfectly clear and rational way.

This hysterical, restless disposition increased and made it necessary to keep her under a hypnotic. I mention this to show the condition of her nervous system that my readers may judge to what extent some irritability of brain or meninges may have been present at this time when they have read the whole history.

About the middle of the fourth week ecchymotic spots appeared on dorsal surface of left foot and the toes of the left foot became blue. This blueness in the toes deepened until, in the middle of the fifth week, the circulation was completely destroyed in the end of the toes, and the ecchymosis extended to most of the foot and threatened gangrene. At death, on the forty-third or forty-fourth day, the toes were gangrenous to the first joint and the circulation in the foot so much impaired that I feel sure the whole foot would have been lost. Ecchymotic spots extended to the knees on the left and had begun to show up on the right.

About the thirty-fifth day of the attack she lost the use of the left arm and leg. They lay limp and useless in any position they were placed.

The last ten days the little girl was in a deep stupor. Pupils reacted very slowly to light. There certainly existed some meningeal irritation.

I would like to know if any others of the profession who may read this have seen similar complications in typhoid? I would like to know further if the restless, hysterical symptoms were due to meningeal irritation in the early stage, before other mental symptoms were present? Further, I want to know the etiology of the gangrene? Could it have been due to a clogging of the capillaries by bacteria? Would be glad to see report of similar cases in the Journal if they have been observed by anyone.

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THIS IS THE OFFICIAL JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION. ALL COMMUNICATIONS SHOULD BE ADDRESSED TO THE JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION, BARNES BUILDING, MUSKOGEE, OKLAHOMA

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Articles sent this Journal for publication and all those read at the annual meetings of the State Association are the sole property of this Journal. The Journal relies on each individual contributor's strict adherence to this well-known rule of medical journalism. In the event an article sent this Journal for publication is published before appearance in the Journal, the manuscript will be returned to the writer.

Failure to receive the Journal should call for immediate notification of the editor, 507 Barnes Building, Muskogee, Okla.

Local news of possible interest to the medical profession, notes on removals, changes in address, deaths and weddings will be gratefully received.

Advertising of articles, drugs or compounds not approved by the Council on Pharmacy of the A. M. A. will not be accepted.

Advertising rates will be supplied on application. It is suggested that wherever possible members of the State Association should patronize our advertisers in preference to others as a matter of fair reciprocity.

EDITORIAL**THE CANCER PROBLEM.**

No matter confronting the medical profession today, and for that matter the nation at large, in the way of disease is of such importance and subject to as much variation in treatment and handling as is cancer in its different phases and presentments, and no individual physician perhaps may be accorded the credit as should be accorded to Joseph Bloodgood of Baltimore, for his untiring efforts to systematize the treatment of the many forms of this trouble along intelligent and sane lines.

For nearly twenty years Bloodgood has made this question a close study and for several years past his observations have been placed in the highest class of authorities. The surgical section of the American Medical Association placed him at the head of a committee to call the attention of the medical profession to hitherto slighted features or propositions barely considered by the rank and file with reference to cancer and the wisdom of this selection is evidenced by Bloodgood's activity in this respect.

He calls attention to so many phases that should have the earnest attention, not only of the surgeon, but the physician as well—for as the

family physician, we are first called to diagnosticate the little advanced and unnoticed danger signals concomitant with cancer—that it is well worth the strong notice of every medical editorial writer, for only by constant repetition may we hope to lessen the high mortality of the disease and make of the profession a safeguard as nearly as possible against the encroachments of the trouble.

Bloodgood's sermons emphasize the following points:

That the Cancer Campaign Committee of the Clinical Congress of Surgeons, Thomas S. Cullen of Baltimore, chairman, had the good fortune to enlist the services of Samuel Hopkins Adams, a lay writer of note, who in the Ladies' Home Journal, Collier's Weekly and McClure's magazine has intelligently and succinctly called the layman's attention to the disease (the medical profession owes Mr. Adams a debt for his ability to quickly see a medical fraud and satirize it unmercifully in such a manner as could not be done by any physician.) Mr. Adams concludes that "cancer can be successfully treated by the knife * * * eradicated permanently * * * absolutely cured in the majority of cases * * * where the operation is **undertaken in the earliest stages** * * * there is no chance of recovery except in surgery," and with this contrasts the statements advertised by a "lying advertisement of S. R. Chamlee, advertising quack," as follows: "That the knife has been a failure in the treatment of cancer no one can deny * * * I will give one thousand dollars if I fail," etc.

That this propoganda to educate the people has caused him to fear that the people "might be educated ahead of the profession, especially the surgeon."

The strongest points that should be dinned into the minds of every physician are these: Cancer operated early is, as a rule, curable; if at the first operation removal is limited and not thorough a secondary operation is almost always a failure regardless of the amount of mutilation and removal; the time, therefore, for the cure of cancer, is at the first operation, surgery has only one opportunity. Cures after secondary operations are exceptional. The excision of a piece for diagnosis; curetting, the application of caustics; X-ray and radium is condemned for the reason that after twenty years observation the primary removal has netted the best results and preliminary disturbance is held to be dangerous. The difficulty of early diagnosis is frankly acknowledged as is the tendency of patients to not notice the little beginnings of the trouble and consequent failure to call on the physician for help; he also notes the activity of the American Society for the Control of Cancer, meeting in Washington May 1913, which has issued a message to the people on the question and contemplates a continued campaign for their education.

Only by continued and constant work will the surgeon be able to awaken the necessary interest to that point where interest will mean protection. The surgeon may be said to be fully awake usually to the danger, but it must be admitted that the family physician is often negligent in this respect; he does not realize soon enough that the little lump in the

breast may be the beginning of a tragic end for his patient. The writer recalls a statement of Ochsner about as follows: "It seems a pity to remove the entire breast for such a little growth, but experience has shown us that if we remove the growth only, the patient returns after a time with a cancer that no operation will cure," a plain, blunt and true putting of the question. Even when the danger is early suspected and the patient advised of the dangerous possibilities, we have trouble inducing them to undergo proper operative intervention, but it is well known to all of us that the neglect of a simple little intermittent bleeding from the uterus is fraught with great danger and the symptom is often the precursor of cancer of an incurable type. The little indurated mass on the face comes under the same heading and many others not necessary to mention.

The laity is prone to call in the services of the criminal who says "one thousand dollars if I fail." They never read between the lines; they never realize that the "thousand dollars" has never been paid and it seems useless to call their attention to the graves of the victims, but we can all do this, we can do our duty; we can carefully point out the dangers and take the patient into our confidence after which we are justified in placing the responsibility with them. However, we should not lose sight of the fact that the man with the least practice, the beginner and the unknown have in this, the opportunity to do as much good as the greatest; they see the patient first, when the trouble is hardly worthy of notice even to the patient, they have opportunities to scent the danger and place the patient in the right way for proper treatment.

THE AMERICAN COLLEGE OF SURGEONS.

The above organization recently perfected in Chicago, and largely patterned after the Royal College of Surgeons in England, is exciting a strange mixture of comment from the medical profession throughout the country. Some journals do not regard the move with any seriousness, others are caustically critical and sarcastic, while some organizations, especially in Chicago, have taken the matter seriously and as a possible infringement on the profession generally, as to ask the meaning of it all.

The Chicago Medical Society recently appointed a committee with Dr. A. C. Cotton as chairman, which committee asked the secretary, Dr. Franklin H. Martin, the reason for the organization of the College of Surgeons, the plans by which the membership will be obtained, and what the attitude of the college will be towards local, state and the national associations. Dr. Martin has replied very effectively, stating that the object of the college shall be to elevate the standard of surgery, establish a standard of competency and character for practitioners of surgery, provide a method of granting fellowships and to educate the public and the profession to understand that the practice of surgery calls for special training, and that the surgeon elected to such fellowship, has had such training, and is properly qualified to practice surgery. The answer of

Dr. Martin in general is a repetition of parts of the by-laws of the organization and may be said to cover the ground satisfactorily.

There seems to be some idea in the minds of some physicians that this organization may effect the membership of the A. M. A. It would seem that this is extremely unlikely to be the case. Surgeons are especially good attenders of medical meetings and while many of us have more meetings than we can now attend the majority of surgeons have not enough and are constantly moving from meeting to meeting for the purpose of self-improvement.

It is said that the very foundation of this, patterned as it is after the Royal College of Surgeons, is so un-democratic and so un-American that it cannot succeed in this country. We are unable to judge how much hostility to the organization has been engendered by these thoughts but we should remember that superiority and aristocracy cannot be organized here or legislated into the medical profession. Some very fine surgeons are ungentlemanly and intemperate and without a blue blooded heritage, while other men who have family, birth and wealth behind them, are failures both as surgeons and physicians: so it would seem that this organization can be nothing but the gathering together of kindred spirits, men working along the same lines of endeavor and who want to improve themselves and their part of the work. We are inclined to the idea that this organization has for its primary principles, requirements productive of great good to the individual surgeon, to those who in the future propose to take up surgery, and especially to the one who should have every consideration, the patient. It is an undisputed fact that scores of men in this country are doing, or attempting to do surgery who are unfitted for the work, and it is also indisputable that many of the men have built or are building themselves up by secretly dividing the fee with, or paying a commission to the physician who recommends them to the patient as the operator. It is significant of this organization that everyone joining it solemnly promises not to offer commission for patients, that of itself is justification for the existence of the body, and if such principles are carried out in the spirit in which they are written, there should be no regret, on the part of anyone, as to its birth.

MEDICAL ADVERTISING

In trying to come to some conclusion concerning the character of medicinal products acceptable as advertising matter in the Illinois Medical Journal, Dr. Whalen and Dr. Pence thought it wise to call a conference to consider the subject. To this conference were asked:

The Committee on Patent Nostrums of the Chicago Medical Society.
 President of the Illinois State Medical Society.
 President of the Chicago Medical Society.
 An ex-President Chicago Medical Society.
 Managing Editor of the Illinois Medical Journal.
 Chairman Council of the State Society.

After a free discussion of the principles that should guide the committee in the matter of advertisements for the Illinois Medical Journal, the following resolution, submitted by Professor Walter S. Haines, was unanimously adopted, with the suggestion that it be submitted to the various County Societies for their approval or amendment:

Resolved, That medical products shall be acceptable for advertising matter only when their composition is stated and no exaggerated claims or misstatements are made in the literature;

Further, it was the judgment of the conference that the same rule should apply to those products which are to be used for external application as well as to those for internal medication;

Further, that such biological products as are produced under government license should be acceptable, unless exaggerated claims are made for them.—Illinois State Medical Journal.

For a long time the press work of the Illinois State Medical Journal has been done on the same presses and by the same hands that issue the Journal of the A. M. A., and the work was good, none better. Lately there was held in the Illinois Medical Association an election which we understand was controlled by a body known as "Insurgents," and the "Old Guard," which "dies, but never surrenders," was swept from power and replaced by the above worthy gentlemen. If we did not know some of the gentlemen personally and were unacquainted with the motives behind the change, but were acquainted with the Illinois Medical Journal in its former stand for propriety and the great change that has come over it since the change we would still be in a position to commiserate the Illinois medical profession on its descent from its former high position. A few fleeting months has wrought change enough in this official organ to permit the inclusion in its advertising pages of a "Postum" advertisement. We suggest, and we know the suggestion falls on barren soil, but we have done our duty in the matter, that this committee on Patent Nostrums et. al. swallow its personal feelings of antagonism long enough to follow the teachings of the Council on Pharmacy and Chemistry of the A. M. A., which daily pursues its course unterrified by threats of disaster and dissolution from the interests. Formerly the Journal in question made propriety and ethics a prime consideration but if the above plan is to be followed we are justified in fearing that from "Postum" it may descend still further and soon its pages will be emblazoned with about everything from Antikamnia to Zymole Trokeys.

SUGGESTIONS TO COUNTY SECRETARIES.

The writer believes that county secretaries will find a very convenient method in keeping their records straight and beyond dispute and misunderstanding as nearly as they can be if their reports and remittances are made with a carbon. In this way they will have in their hands a duplicate of all the names they send in, together with the exact amount sent for each member. It will also be found better to send personal checks rather than postal orders or bank exchange, as the returned cancelled checks are receipts for the amounts sent.

SOCIETIES, PERSONAL AND GENERAL NEWS.

Dr. E. M. Russell, Nowata, has removed to Springfield, Mo.

Dr. A. S. Riddle, Chickasha, who was recently appointed to a position in the Revenue Department, has resigned, giving as a reason the insufficiency of salary of the position.

Dr. Frank P. Davis, Enid, has announced his intention of seeking the nomination for Lieutenant-Governor on the Democratic ticket in the coming primaries.

Dr. E. M. Williams, an assistant superintendent of the Vinita State Hospital, has resigned. His position was filled by the appointment of Dr. E. L. Bagby of Fairfax.

Dr. T. H. McCarley, Atoka, will remove to McAlester and enter partnership with Drs. Long and Willour.

Dr. C. C. Shaw, Mill Creek, who represented Johnson county in the last State Senate, it is said, contemplates announcing his candidacy for Congress from his district.

Pittsburg County Medical Society entertained its members January 10th with a banquet at the Busby Hotel. Dr. Frank J. Hall of Kansan City was the guest of note and delivered an address to the society.

Drs. G. W. Stewart and J. M. Bonham, Hobart, were the physicians delivering talks to the Yamparika Club recently, Dr. Stewart confining his address to public health matters, Dr. Bonham to the physical examination of school children.

Dr. E. L. Cohenour and Miss Jessie Elma Howard of Cameron, West Virginia, were married at that place December 30th. They will make their home in Tulsa.

Dr. Isham L. Cummings and Miss Clemmie Barringer of Ada were married January 21st. Dr. Cummings is secretary of Pontotoc County Society.

Dr. Ray Hume, of Minco, a son of Dr. C. R. Hume, Anadarko, had a very narrow escape from death recently. In attempting to cross the Canadian river near Minco, the buggy struck quicksand and Dr. Hume was kicked by one of the horses. He narrowly escaped after a long struggle in the water, the team being drowned.

Dr. J. Judd Smith, a "cancer specialist" of Sapulpa, was recently bound over for appearance in the District Court of Creek county on the charge of obtaining money by false pretense in promising to cure a cancer "no cure no pay," but later wheedling the victim out of fifty dollars, then demanding more and on refusal stopping "treatment." Not being able to give the required bond, he was placed where any one desiring to communicate with him may do so by addressing him in care of the sheriff of Creek county or the county jail.

Dr. G. A. Wall, who for many years resided in Oklahoma City, has moved to Bartlesville. Dr. Wall has always been in the forefront of medical endeavor in Oklahoma, and ranked especially high as a surgeon in that city. It is said that he has made some very good connections in Bartlesville, and will probably establish a hospital at that point. The Journal wishes Dr. Wall every measure of success and commends him to the profession in his new location.

Dr. W. L. Kendall, Enid, Superintendent of the Home for Feeble Minded Children, spent a part of January and February in Boston doing post-graduate work in Harvard School.

Dr. and Mrs. W. E. Wright, Tulsa, will sail for Europe in July shortly after the Atlantic City meeting of the A. M. A. They will accompany the Georgia Surgeons' Club.

Dr. H. A. Lile, Aline, will spend two months, February and March, in the New Orleans Polyclinic doing post-graduate work.

Dr. J. C. Johnson, Lawton, has been appointed county physician of Comanche county.

Dr. D. A. Shoun has moved from Albert to Fairfax, taking the office equipment of Dr. E. L. Bagby, who goes to the Northeastern Hospital for the Insane at Vinita.

Assistant Attorney General Moore has rendered the State Board of Medical Examiners an opinion that it is not necessary to institute court proceedings for the purpose of revoking license on account of unprofessional conduct on the part of a physician.

Dr. G. E. Harris has been appointed county physician of Choctaw county on recommendation of the county superintendent of health, Dr. W. N. John.

Dr. Oliver Bagby, Vinita, according to press reports, is being solicited to make the race for Lieutenant-Governor. Dr. Bagby is not only one of the earliest physicians of Eastern Oklahoma, but an able one as well, and has made a financial success of his life to the extent that he may indulge in politics and seek preferment in that respect if he desires. His election would be a recognition of a good man.

Dr. A. L. Davenport, Holdenville, will receive the appointment as post-master at that place, according to unofficial report.

CONSTITUENT SOCIETIES.

McIntosh County meeting at Checotah January 13th: "Treatment of Fractured Femur," Howell Scott, Muskogee; "Pneumonia," J. H. McCullough, Checotah.

Muskogee County at Muskogee, January 12th: "Treatment of Glandular Enlargements with X-Ray," M. M. Roland, Muskogee; "Better Babies," J. T. Nichols, Muskogee.

Roger Mills election of officers as follows: President, W. I. Wimberly; Vice President, W. S. Carey; Secretary, J. P. Miller; Treasurer, H. C. Dorrah.

Greer elected President, Ney Neel, Mangum; First Vice President, G. P. Cherry; Second Vice President, O. R. Jeter; Censor, B. F. Carr; Delegate, M. M. DeArman; Secretary-Treasurer, G. Pinnell.

Washita elected J. E. Farber, Cordell, President; A. M. Sherburne, Vice President; W. R. Leverton, Cloud Chief, Secretary.

Caddo elected B. D. Brown, Apache, President; Earl Smith, Grace-mont, Vice President; C. R. Hume, Anadarko, Secretary-Treasurer; W. W. Kerley, Delegate. This society does something annually that, as a rule, should be emulated by other county societies. They elect the same secretary and thus have the maximum of service continuously with the minimum of effort. Dr. Hume is one of the most prompt and best posted secretaries in the state and has been in office for many years.

Seventh Councillor District Society will hold its regular quarterly meeting in Muskogee January 27th. The officers of this society, Drs. W. A. Tolleson and A. B. Montgomery, are making of it a useful organization to the physicians in their territory.

Alfalfa county elected: President, H. A. Lile, Aline; Vice President, J. M. Guame, Byron; Secretary-Treasurer, L. T. Lancaster, Cherokee; Censors, S. B. Growden, Cherokee; H. B. Ains, Burlington.

Custer county elected: President, M. C. Comer; Vice President, L. L. Patterson, Arapahoe; Secretary, S. C. Davis, Weatherford; Censor, McLain Rogers, Clinton.

Jackson county elected: President, E. S. Crowe, Olustee; Vice President, D. L. Garrett; Secretary-Treasurer, Raymond H. Fox; Delegate, S. P. Rawls; Alternate, W. H. Rutland; Censors, C. G. Spears, S. H. Landrum, Altus, and W. H. Clarkson, Blair.

Mayes county elected: President, W. C. Brayant, Choteau; Vice President, J. L. Mitchell, Pryor; Secretary-Treasurer, J. R. Preston, Adair.

Osage county elected: President, Divonis R. Wharton, Pawhuska; Vice President, Thos. M. Berry, Hominy; Secretary-Treasurer, Roscoe Walker; Censors, W. H. Aaron and Benj. Skinner, Pawhuska.

Payne county elected: President, W. B. Hudson, Yale; Vice President, Eli Hughes; Secretary-Treasurer, J. B. Murphy, Stillwater; Censor, C. H. Beach; Delegate, J. H. Cash, Glencoe.

Stephens county elected: President, R. L. Montgomery, Marlow; Vice President, C. E. Frost, Duncan; Secretary-Treasurer, H. A. Conger, Duncan; Delegate, D. Long; alternate, P. M. Haraway, Duncan.

Texas county elected: President, W. H. Langston; Secretary-Treasurer, R. B. Hayes, Guymon.

Tulsa county: President, W. W. Brodie; Vice President, H. D. Murdock; Secretary-Treasurer, P. R. Brown; Censors, H. F. Zink, A. W. Roth; Delegate, P. R. Brown.

Washita county elected: President, J. E. Farber; Vice President, A. M. Sherburne, Cordell; Secretary-Treasurer, W. R. Leverton, Clondchief; Delegate, A. H. Bungardt, Cordell; Alternate, Wm. Tidball, Sentinel; Censor, E. T. Sandberg, Cordell.

**PROCEEDINGS OF THE CLINICAL SOCIETY OF ST. ANTHONY'S
HOSPITAL, OKLAHOMA CITY, DECEMBER 15, 1913.**

Syphilitic Periosteitis Chronica. Case presented at a meeting of the Clinical Staff of St. Anthony's Hospital, Monday, December 15, by Dr. Arthur W. White. Skiagraphs by Dr. E. S. Lain.

Mr. F., blacksmith, age 54, married. Mother died at the age of 62 from apoplexy. Father was accidentally killed. Family history is other-



wise negative. Mr. F. had typhoid pneumonia when eleven years old, and was in perfect health after that, until about seven years ago, when the right leg, below the knee, began to show an outward curvature, as he thought. This appearance gradually became more marked; was not accompanied by pain or soreness, until two years ago, when pain, slight and

transient in character, began to appear at various intervals of from one to seven days and occurring at times in the ankle and the knee of the affected leg.

On February 1, 1913, the patient accidentally injured the skin over the anterior surface of the tibia, between the knee and ankle. The abrasion was small, with an area of about that of a half dollar. This accident was followed immediately and continuously by severe pain along the whole course of the tibia. The injury failed to heal and seemed to resist all treatment. On March 24, when I first saw him, he was sent to Dr. Lain, who X-rayed the leg, taking both an antero posterior and a lateral picture, as shown in the accompanying cuts. The picture shows the condition to



be one of subperiosteal thickening with production of new bone about the whole circumference of the tibia, so that the deflection was more apparent than real. Measurements taken at that time showed the circumference, the upper third of the tibia to be $14\frac{3}{8}$ ", middle third $13\frac{1}{8}$ " and lower third $9\frac{1}{2}$ ". The skin over the whole lower leg was red and congested. The abrasion had increased in size and character until it appeared as a chronic ulcer somewhat larger than a silver dollar.

Mr. F. was given postassium iodide in increasing doses with local applications of mercurial ointment to the affected limb. The ulcer healed up entirely in about two weeks. Mr. F. has continued the use of K. I.

continuously since the last of March with mercurial injections at intervals. At times the pains in the leg were quite severe, but about a month ago they disappeared entirely and he has been free from them ever since. The diagnosis of this condition seems plain when we study the skiagraphs. Then, too, the gradual enlargement of bone tissue showing the white areas (observed in the cuts) are pathognomonic of bone syphilis.

Mr. F. denies all history of specific infection. The measurements of the lower leg today (Dec. 15th) are: Upper third $13\frac{1}{4}$ ", middle third $12\frac{3}{4}$ ", lower third $8\frac{1}{2}$ ".

Presented by Dr. J. T. Martin.

Mr. A. G. B., age 52, contractor and builder. Complained of vague pains in head and a marked polyuria. Family history of little importance. Father died at age of 57 years. Mother died at 74. Four sisters living and well, one dead of pneumonia. Five brothers living and well, one died in infancy. Patient has had rheumatism and asthma. In December, 1911, began to notice excessive thirst. He has always been a heavy water drinker; temperate as to alcoholic beverages. Two and a half years ago had sharp pains in legs. About twenty years ago had a single non-painful penile sore. Doctor gave him a powder to apply and sore was well in about a week. No secondary skin lesions noticed. He was told to return but saw no reason to do so.

I first saw him January, 1913. At this time he was passing fourteen to twenty quarts of light-colored urine. Sp. Gr. 1001, no albumen, no sugar, no casts. He had to get up at night every hour and urinate, also take a drink. As a convenience he kept a gallon of drinking water at bedside. Ability to work manually or mentally lessened. Examination, well nourished body but dry, harsh skin—glazed in places especially on face. Face blotchy and skin loose. No edema. Sensation normal; reflexes diminished; one knee jerk absent; pupil—Argryl Robertson. No Romberg's sign, though patient stated that sometimes on passing a doorway would strike door. Chest negative; slight arteriosclerosis. Gave sedatives—bromides—and quantity of urine diminished. In one week the amount voided was reduced to ten or twelve quarts daily. Wasserman on spinal fluid. He received mercuric and cacodylate of sodium by hypodermic alternately. Improvement noted in pain in head and slowly diminishing urine. Glycerine mouth wash to help control throat. At end of three months put on protoiodide of mercury by mouth. He took a contract to erect a school building at Purcell. Returned to city late in fall complaining of rheumatism in right arm. Pain in neck and cough. Examination revealed pulsating mass on right side below clavicle and under mammary line. Put patient to bed. Dr. A. D. Young saw him in consultation and advised injections of mercuric. This and aspirin to control pain was the treatment given for next six months. At this time a slight ataxia was detected, but Romberg sign was not marked enough to be called positive. At present patient is on protoiodide of mercury and, as you see, able to be about. He has been cautioned about sudden and violent exer-

cise. Physical examination at this time reveal no marked bruit, marked expansile pulsating tumor above clavicle. Pulse in two radials simultaneous (finger examination); slightly stronger in left. Patient says he is better; pains in arm and shoulder much better, but he still has them. This presents the picture of parasyphilis. Medastinal malignancy is excluded by lack of lymphatic involvement, patient's general condition over this long a period and perhaps by the apparent improvement with medication of mercury. The brachial pressure is from an aneurysm of the arch of the aorta. Seventy-five per cent of syphilitic autopsies show aneurysm, according to an article of Osler's in the "Lancet," about one to 500 deaths are due to aneurysm.

An interesting question in regard to this case is, is the polyuria due to cerebral gummata or syphilitic encephalitis?

By Dr. R. M. Howard.

Mr. A., age 24 years, single; family history negative. Had diseases of childhood; no complications. Was always well and strong until May, 1911, when he was taken with a continued fever diagnosed typhoid which ran an almost typical course for six weeks. During convalescence, about two weeks after the appearance of the last fever, he noticed that he had a tumor mass in the upper left quadrant of the abdomen which was easily made out as an enlarged spleen. He continued free from fever, but did not seem to gain much in strength. A blood examination at this time revealed a typical picture of spleno-myelogenous-leukaemia, or leukocyte-leukaemia; the disproportion between the various forms of polynuclear leukocytes being marked; the presence of a large number of myelocytes, and the total leukocyte count being 240,000. The hemoglobin was only slightly reduced, and there were no changes in the red cells. The liver was not enlarged. There were no disturbances of kidney functions, no nodes under the skin, no lymphatic enlargement, no circulatory changes (except a pulse running from 90 to 100), no diarrhoea, and no ascites.

He was immediately put on iron and arsenic, and the X-ray used once or twice a week over the spleen and long bones. This treatment was continued with remissions of the trouble, and apparent improvement at times. The white blood count ranged from 200,000 to 350,000. He was up and about most of this time, but after each increase of the trouble appeared to gain less rapidly, and one year later his total loss was apparent.

In September, 1912, after spending two weeks at Sulphur Springs, he developed a severe and persistent diarrhoea. The temperature was found to be 99.4 degrees to 101 degrees, pulse 90 to 120. The spleen was much more enlarged, filling up over two-thirds of the abdominal cavity. The liver was perceptibly enlarged, and there was some ascites. There were no hemorrhages at any time. The white blood count ran up to 480,000, hemoglobin dropped to 70%. Myelocytes were present in large numbers, and there were some immature red cells. He presented at this time a typical picture of the terminal stage of the trouble. He was in bed for two months, when he began to improve, diarrhoea was checked, and he was

again able to be up. The blood count, however, remained high, and the spleen enormous in size. At that time he was put on one drop doses of benzol in olive oil. This was gradually increased up to five drops and then up to fifteen drops after each meal. There was at first an increase in the number of leukocytes up to 602,000 which registered the highest point in the course of the disease; this was rapidly followed by a marked decrease both in the total number and in the number of the myelocytes present. He soon began to feel and look much better, and the spleen rapidly decreased in size.

He has continued this treatment intermittently until the present time, but has decreased the size of the dose of benzol. The spleen is back to almost normal size; the liver is not enlarged; he has had no further diarrhoea, and the blood count reveals the total number almost back to normal with but a very small per cent of myelocytes present. He says he feels as well and strong as he did before the trouble began. At no time since the benzol was started has there been anything but improvement in his condition, although the white cells were at first increased.

Since the discovery of leukaemia by Virchow in 1845 we diagnose by this term: "A disease characterized by increase in the number of white cells in the blood as a result of the morbid activity of the blood-forming organs, and in which the blood alterations forms the essential picture of the progressive and pernicious cause of the disease."

Of its cause we know but little, most authorities agreeing that it is the result of the action of some unknown toxic agent on the blood-forming organs, causing an overproduction of the immature forms, and their liberation into the blood stream.

Its treatment in the past has proven of no avail, most, or practically all, dying within from one to three years. Benzol has been in use in its treatment only about eighteen months, and sufficient time has not elapsed to conclude more than that its use uniformly brings on a rapid disappearance of the symptoms with a marked tendency for the patient to return to normal health. Perhaps we have found another "specific" to add to the few now known!

Benzol given to a normal individual will decrease the number of leukocytes in the circulating blood, continued may bring about an alarming condition, so that its use in the treatment of leukaemia is not without its dangers, for unless the blood picture is carefully watched, we may go beyond what we are attempting and get a leukopenia which might be as bad a condition for the patient as his original trouble. In the treatment of lymphocyte-leukaemia with benzol I have had no experience but it is said to be contra-indicated.

The following are the blood findings made at various times, and for which I am indebted to Dr. C. E. Lee:

1911 June 6	.....	Leukocytes 222,000, Myelocytes 30.9%
June 20	.....	Leukocytes 128,000, Myelocytes 33.3%
July 5	.....	Leukocytes 100,000, Myelocytes 40 %
Aug. 3	.....	Leukocytes 140,000, Myelocytes 22.8%
Aug. 22	.....	Leukocytes 180,000, Myelocytes 31.1%

	Sept. 26	.....	Leukocytes	136,000,	Myelocytes	30.8%
	Oct. 24	.....	Leukocytes	96,000,	Myelocytes	27 %
	Nov. 24	.....	Leukocytes	260,000,	Myelocytes	25 %
	Dec. 28	.....	Leukocytes	352,000,	Myelocytes	25 %
1912	Jan. 30	.....	Leukocytes	490,000,	Myelocytes	30.6%
	Feb. 21	.....	Leukocytes	186,000,	Myelocytes	16.1 %
	Apr. 4	.....	Leukocytes	184,000,	Myelocytes	22.8%
	May 13	.....	Leukocytes	270,000,	Myelocytes	27 %
	June 29	.....	Leukocytes	394,000,	Myelocytes	22.8%
	Dec. 3	.....	Leukocytes	422,000,	Myelocytes	29 %
1913	Jan. 13	.....	Leukocytes	286,000,	Myelocytes	20.3%
	Jan. 30	.....	Leukocytes	430,000,	Myelocytes	16 %
					(Hb-85)	
	Feb. 22	.....	Leukocytes	602,000,	Myelocytes	36 %
	Mar. 22	.....	Leukocytes	502,000,	Myelocytes	25 %
	Apr. 5	.....	Leukocytes	438,000,	Myelocytes	21 %
	Apr. 19	.....	Leukocytes	288,000,	Myelocytes	10.8%
	May 3	.....	Leukocytes	80,000,	Myelocytes	15 %
	May 12	.....	Leukocytes	114,000,	Myelocytes	9.2%
	May 26	.....	Leukocytes	148,000,	Myelocytes	20 %
	June 10	.....	Leukocytes	148,000,	Myelocytes	13 %
	June 23	.....	Leukocytes	114,000,	Myelocytes	7 %
	July 5	.....	Leukocytes	166,000,	Myelocytes	12 %
	Aug. 22	.....	Leukocytes	164,000,	Myelocytes	13 %
	Sept. 20	.....	Leukocytes	132,000,	Myelocytes	15 %
	Oct. 6	.....	Leukocytes	126,000,	Myelocytes	9.5%
	Oct. 18	.....	Leukocytes	156,000,	Myelocytes	9 %
	Dec. 20	.....	Leukocytes	35,000,	Myelocytes	5 %

EASTERN OKLAHOMA'S HEALTH OFFICERS MEETING.

The meeting of the Health Officers of Eastern Oklahoma was held in Muskogee January 20, Dr. J. C. Mahr, State Commissioner of Health, presiding, and the Secretary of the Health Officers Association, Dr. J. C. Ambrister, Chickasha, recording the meeting. The attendance was very good and each officer made a detailed report of conditions in his county.

Dr. Frank J. Hall of Kansas City, Mo., delivered an address on "Throat Infections." The address was concise and to the point and covered staphylococcic, streptococcic, diphtheric, Vincent's angina, and spirillum infections, including syphilis. The address was closely followed by all present, and was a worthy effort on the part of Dr. Hall. Among other things particularly brought out by his address was the importance of school inspection and the danger of neglecting recurrent strepto and staphylococcic infections of the throat, tonsils and adenoids in children, and the resulting rheumatic infections. Dr. Hall also urged the use of diphtheria antitoxin intravenously in those cases of diphtheria where apparently all hope was exhausted, and holds that many of these apparently moribund cases may be saved by such treatment. Dr. C. A. Thompson, Muskogee, read a paper on "Chloride of Lime as a Cheap, Practical and Effective Purifier of Municipal Water Supplies." The discussion of Dr. Hall's address and Dr. Thompson's paper was opened by C. E. Hamner of the State Bacteriological Laboratories. Dr. J. C. Mahr addressed the meeting on the "Present Legal Status of Certain Public Health Matters," and also advised the health officers of various recent rulings of the Attorney General's office.

A resolution was adopted, requesting that the State Commissioner of Health divide the state into four or more parts, and hold a meeting annually of the health officers in each of such parts. A resolution was adopted declaring it to be the sense of the meeting that quarantine in cases of smallpox be abolished as soon as practicable; that citizens of Oklahoma be advised that successful vaccination is a positive protection against infection from smallpox, that they may freely and without fear mingle with and associate with generally, persons with smallpox without fear of infection, if they are successfully vaccinated. This motion produced considerable discussion but was finally passed without a dissenting vote.

MISCELLANEOUS — ABSTRACTS — REVIEWS

REGISTERED NURSES OF OKLAHOMA.

The following is a correct list of nurses registered in the state of Oklahoma to date. Since the bill was passed in March, 1909, and amended in 1913, making registration compulsory, there has been a marked improvement in the nursing world. Many undesirables who are not graduates, but posed as such, have taken up other work or gone to other states not yet so fortunate as to have a registration law. The Board of Examiners ask the medical profession to help them, by employing only registered nurses. The next examination will be held in Oklahoma City, at St. Anthony's Hospital, June 8th and 9th. If the names of nurses not registered were sent to the secretary of the board, whenever one is found, it would be very much appreciated.

MARJORIE W. MORRISON, R. N., President.

MABEL GARRISON, R. N., Secretary.

ESTHER YOUNG, R. N.,

IDA FURGESON, R. N.,

LUCY McGUIRE, R. N.

Auten, Idah Marie
Ainsworth, Alice C. H.
Avery, Laura F.
Abbot, Audrey
Acker, Blanche R. (deceased)
Anderson, Agnes
Ankenman, Ida May
Anthony, Mabelle Ethel
Appleby, Dotta Dean
Brown, Mabelle
Bull, Laura B.
Banning, Sophia Lucretia
Brownlee, Flossie E. B.
Byrd, Virginia F.
Brooks, Ethel
Bentley, Clara
Bickel, Elsie
Biddle, Jessie A.
Berteiel, Bertha G.
Birnie, Sallie
Bostaph, Ethel A.

Belles, Margaret E.
Boyd, Rose F.
Bizley, Emily L.
Bridges, Ruth C.
Caldwell, Lucy Bernice
Carr, Lela Eliza
Cady, Collette
Cannon, Carrie V.
Cannon, Rose L.
Cole, Alberta W.
Carter, Mildred
Chandler, T. Mildred
Coffey, Sue Annie
Carmody, Delia
Chapman, Catherine N.
Conner, Cecelia
Cooper, Mary L.
Corson, Goldie M.
Crutchfield, Mary (Scott, Mrs. W. D.)
Corney, Mary
Cowles, Annette B.

Cole, Lillian T.
 Cunningham, Deloris
 Cox, Sarah E. R.
 Collar, Adda M.
 Chappell, Nanie
 Dunning, Rosel L.
 Dowd, Frances Bell
 Divine, Frances A.
 Doretheia, O. S. F., Sister Mary
 Delphina, O. S. F., Sister Mary
 Derrickson, Emma S.
 Drake, Edith F.
 Downing, Vada B.
 Davis, Mattie E.
 Dudley, Dorothy B.
 Dunlap, Lina S.
 Dean, Mary L.
 Deaton, Emma
 Duel, Dorthulia
 Deming, Violet Opal
 Eaton, Ada Pauline
 Ellison, Lula Pearl
 Eller, Ida Belle
 Ellis, Clara Lee
 Elliott, Nellie
 Evans, Lorenda Reid (colored)
 English, Vonbera
 Ferguson, Ida
 Frederick, Anzie Calhoun
 Funk, Bessie M.
 Farlow, Flora
 Farnsworth, Margaret
 Fuller, Hilda
 Frederick, Julia A.
 Farmer, Mary Helen
 Forbes, Mary Elizabeth
 Guest, Laura Mae
 Grosstueck, Laura
 Grener, Mary A.
 Garrison, Mabel
 Garrison, Beatrice
 Green, Alice Bennet
 Gould, Leona Clutter
 Gutman, Ruth Frances
 Garrett, Florence
 Gray, Maud Basilla
 Gertrude, O. S. F., Sister Mary
 Greenan, Nora
 Grady, Grace
 Gard, Myrtle M.
 Garrison, Ida Lee
 Green, John
 Hinds, N. A.
 Hendrix, Jeffia Belle
 Hartley, Lelia
 Harrison, Bessie M.
 Hauser, Elizabeth M.
 Holland, Edna Florence
 Hatch, Myrtle Mae
 Hill, Lucy Renette
 Hartman, Gertrude Pauline
 Howe, Minnie
 Hutson, Maude Estelle
 Haven, L. Blanche
 Hammer, Jessie Freemont
 Hare, Stella
 Hoover, Mamie
 Hoover, Ella Bell
 Hardy, Annie

Helmich, Grace
 Hetzel, Marguerite
 Heid, Louisa A.
 Heineman, Sarah Evelyn
 Held, Ida Carlisle
 Huggins, Charlotte
 Huber, Bertha
 Hanson, Marie Martha
 Irwin, Grace DeWitt
 Jensen, Lydia B.
 Julian, Lula M.
 Jantzen, Mary
 Johnson, Selma O. B.
 Johnson, Nellie Wilson Kennedy
 Johana, O. S. F., Sister Mary
 Johnson, Lillian Beatrice
 Jemison, Grace Collison
 Johnson, Hattie Leona
 Kindschi, Emma Elizabeth
 Ladd, Inez
 Lee, Margaret Estelle
 Light, Antoinette Emily
 Lindell, Anna May
 LeBaron, Anna
 Linderme, Lenore Marie
 Lyng, Pearl Stella
 Lewis, Isabella McKerrow
 Lucia, O. S. F., Sister Mary
 Maddox, Pearl G.
 Morrison, Margie W.
 Matthews, Nannie N.
 Martin, Jennie Elizabeth
 Morey, Mabel Grant
 Maguire, Lucy Catherine
 Matson, Flora A.
 Maddux, Frank Madera
 Mayhew, Lizzie
 McCutchen, Rebecca Philena
 McAllister, Etta Geddes
 McKerrow, Frances
 MacKay, Olive
 Miller, Ethel May
 Moore, Anna G. M.
 Meredith, Rhoda
 McCarthy, Mary Agnes
 McCarty, Lucia
 Murdock, Nellie Agnes
 Murphy, Helen Brown
 McCandless, Clara Einma
 Mollohan, Orie Cleorenda
 Morrison, Lula V. (colored)
 Meacham, Daisy Fay
 McElroy, Lela
 Noyes, Dode I.
 Neff, Ina Lee
 Neff, Georgia Elva (deceased)
 Norberg, Theresia N.
 O'Donnell, Mary
 O'Donnell, Alice V.
 O'Rourke, Kate Helen
 O'Hara, Cecil
 Peterson, Augusta Elizabeth
 Piekel, Elin Matilda
 Paul, Lucile
 Parker, Maude Caroline
 Pierce, Nellie Frances
 Parker, Maude Bell
 Parker, Effie L.
 Powell, Benie

Powell, May Belle
 Parmley, Madge Daggett
 Peters, Mary Elizabeth
 Phipps, Cora Etta
 Richards, Irene Lucille
 Rickey, Catherine
 Ross, Bessie
 Ryder, Bertha V.
 Rausch, Margaret
 Rogers, Susan B.
 Riley, Cassie Sheldon
 Reed, Jeanette
 Raney, Alice Ethel
 Raney, Margaret Regina
 Rhodes, Ethel D.
 Shaw, Mary A.
 Smallwood, Elizabeth
 Scott, Kate Bennett
 Salmon, Olive
 Smith, Annie Futin
 Sawyer, Annie Linton
 Smith, Margaret
 Scroggs, Idora Rose
 Saunders, Augustine Calloway
 Saunders, Carrie
 Schultz, Frieda Pauline
 Seton, Dorothy Beatrice
 Shields, Nora Lee
 Schniffner, Anna Estelle
 Soliday, Luella A.
 Smith, Eliza Gray
 Stark, Bertha C.
 Stoermer, Pauline
 Stiner, Ida May
 Smith, Rose Antionette (deceased)
 Scott, Dora M.
 Suthard, Laura Emma
 Spellman, Mary Katherine
 Scott, Lillian Farris
 Shacklett, Margaret
 Soper, Mary M.
 Shackouls, Laura Breland
 Smith, Lea Emily
 Smith, Ina Frances

Sutphin, Lillian Aloise
 Swift, Annie Virginia
 Sorenson, Alma Elfrieda
 Steddom, Sarah A.
 Scott, Janet Anderson
 Sutherland, Ethel
 Samples, Ila Mae
 Sloan, Katherine
 Townsend, Anne Belle
 Tanksley, Ella
 Tucker, Elmira
 Throne, Lillie Etta
 Threatt, Mary Alice
 Teel, Mary Emma
 Tilly, Daisy Latrina
 Taylor, Letha Estella
 Traver, Henrietta L.
 Volk, Katherine M.
 Valliant, Augusta S.
 Vincent, Mary Ida
 Walters, Margaret
 Whitwell, Blanche
 Walker, Rose E.
 Williamson, Grace Stella
 Welsh, Margaret Mary
 Wiley, Elizabeth May
 Wenzel, Isabell J.
 Weiler, Florence
 Whitsett, Cora Belle
 White, Bessie
 Wiebe, Anna Belle
 Woodall, Orlena Paula
 Woods, Vera M.
 Workman, Hannah Mary
 Watson, Ina M.
 Westmoreland, Susan Elizabeth
 Woodward, Ora Lee
 Wingo, Laura Eunice
 Wilson, Olive Inez
 Wildgrube, Lorinda A. M.
 Young, Amelia F.
 Young, Esther
 Zimmerman, Martha Eggleston
 Zeiglar, Henrietta C. C.

CHEAP AS LONG AS WE ARE WILLING TO BE CHEAP

The program of the Wednesday evening meeting, December 10, in which physicians' compensation was discussed from various angles before a goodly audience, illustrated again the value of these joint contributions of doctors and laymen in discussion of broad economic subjects that effect both profession and public

In general we say, added to the experience and prestige which such work brings, physicians ought to be paid for their services upon the attending staff of the County Hospital and the Illinois Eye and Ear Infirmary

Certainly no one of the present staff would object to a pay envelope, but perhaps few of them will take a stand to make it possible. Nor can we blame them, since ninety-five per cent of these staff positions are held by members of organized medicine and organized medicine never has been ready to take such a stand. Most of these places are filled, too, by

teachers in our medical colleges, who would not jeopardize their teaching jobs to join even a majority of the physicians in demanding pay for this work. As long as there is a considerable majority of the profession ready to step into their shoes and serve for nothing; as long as there is such disagreement among doctors, much of it selfish, nothing will ever be done in Chicago to change the situation.

If the practice of giving free service to a rich corporation or county is right and good policy, there should be no argument; but if wrong or bad policy from the standpoint of the whole profession, the situation needs a change. However, as long as a considerable number of doctors believe that there is recompense enough to the members of the staff in the personal benefit which they receive from clinical experience, teaching, college titles and directly or indirectly from practice, so long will the public laugh at the protests of even a majority of the profession. As long as reputable physicians demonstrate by this scramble for such positions entailing free service, the scramble of necessity over the bodies of their fellows, dead or mangled in the process; as long as they shall even illustrate this willingness to pay their own good money for a place; as long as they shall cheerfully undergo test examinations for highly prized staff appointments without salary, just so long will the public officials, backed by the people, continue to demand expert medical service without financial recompense.

And why should the county pay for what it can get for nothing?

However, it is well to keep in mind the fact that service to a county able to pay for it, as it does for scrub women and lawyers, is not charity. Some have called it charity work, some have called it ridiculous, but most of us seem satisfied. The chief criticism of the profession in this connection is the fact that it accepts these positions and yet lifts no hand as staff men to protest the entrance of the well-to-do and even rich patients to the beds that should be wholly reserved for the county's poor.

The work which we do as private practitioners without hope or thought of reward, every day in office and out, in all kinds of weather and at all hours—this is a different matter. The story of this real charity is unwritten, and the half shall never be told, or need it be, for the record of it is safe in the hearts of the multitudes from generation to generation. In view of these facts let us speak less of the outrageous imposition upon us doctors. We are to blame ourselves. Let us hear less too, of our self-denial and great personal sacrifice for humanity in these public institutions.

It is not philanthropy; it is plain business.—Bulletin, Chicago Medical Society, December 20, 1913.

THE WARNES' AUTOMOBILE LAW.

Physicians all over the State are wearing "the smile that won't come off" since the Warnes' automobile license law has been declared invalid by Judge Kinkead of Franklin County court of common pleas. As an evidence of rank class legislation this license law surely was a success. Automobilists do not oppose any just contribution to the State's exchequer, but they can not be blamed for regarding adversely such a law as the present State administration has fathered to mulct them,

because, forsooth, they are supposed to have money. It is understood an appeal to the supreme court is now pending, in order to settle definitely the status of the law. In the meantime no licenses are to be issued.—The Medical News, Cincinnati.

Which reminds us that we of Oklahoma are also plagued with a legislative bacillus pestis intent on wringing a few dollars more from underpaid physicians and other owners of automobiles by this system of unfair class legislation. Not content with taxing a mass of uncertain accounts and notes, instruments, library and general equipment, his home, which is often mortgaged and every other thing he may own, the city fathers get together and pass an ordinance designed to mulet him further. There is certainly no reason for double taxing an automobile owner; his machine never does the damage any buggy, dray or farm wagon does to asphalt and brick; on the contrary every driver of a machine is a daily booster for good roads and clean, unhittered streets. We pay Oklahoma one dollar on each machine. Where it goes no one knows. Certainly there is no evidence that it is applied to roads. In Muskogee a neat little five-dollar bill is asked for and all the physician has for it is the privilege of using his tires for glass collectors.

YOUTH WILL HAVE ITS FLING.

According to The Medical News (Cincinnati) a young interne was recently discharged from a Cleveland hospital for plastering up the mouth of a yelling infant who had been entertaining the ward for thirty-six hours with an exhibition of High C. It is said that the treatment of the "yells" was effective, but the superintendent, fearing the effect it would have on the general public, parted company with the young medical Edison. This young man should be reprimanded perhaps on the one hand, but commended on the other for calling attention to a novel method of handling an aggravating situation.

Chicago physicians are taking steps to make a test of the ordinance which forbids automobiles standing, unattended, for a period longer than fifty-nine minutes in the loop district. They hold that the proposition seriously affects large numbers of physicians having downtown offices who have no chauffeur employed; that its terms may seriously affect the handling of emergency cases, and that there is also a question as to its being a form of unconstitutional class legislation.

The Northeastern Oklahoma Medical Society will meet in Nowata Friday, February 20, 1914. A very complete program has been arranged.

J. V. ATHEY, Secretary,

Bartlesville, Okla.

NEW AND NON-OFFICIAL REMEDIES AND PROPAGANDA FOR REFORM.

Since publication of New and Non-official Remedies, 1913, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Non-official Remedies."

Digipoten.—Digipoten consists of the digitalis gluco-sides in soluble form, diluted with milk sugar to give it a strength equal to that of digitalis of good quality. Digipoten is adjusted by the frog and guinea pig methods to have a strength of 1400 heart tonic units and by chemical assay to contain from 0.3 to 0.4 per cent digitoxin. The action, uses and dosage of digipoten are the same as those of digitalis. It is sold in the form of a powder, which is soluble in water, and as digipoten tablets, each containing 0.03 Gm. The Abbott Alkaloidal Co., Chicago, Ill. (Jour. A. M. A., Dec. 6, 1913, p. 2069.)

Tannigen Tablets.—Each tablet contains tannigen (see N. N. R., 1913.) 0.5 Gm. The Bayer Co., New York City (Jour., Dec. 6, 1913, p. 2069.)

Bordet.—Gengon Bacillus Vaccine for Whooping Cough Prophylaxis. Greeley Laboratories, Inc., New York.

Bordet.—Gengon Bacillus Vaccine for Whooping Cough Therapy. This vaccine is believed to be of service in the prevention and also in the treatment of whooping cough. Greeley Laboratories, Inc., New York City. (Jour. A. M. A., Dec. 13, 1913, p. 2158.)

Culture of Bacillus Bulgaricus, Fairchild. A liquid culture of the Bacillus Bulgaricus. The culture is sold in packages containing 6 and 30 vials, respectively. The culture is used internally in the treatment of the treatment of suppurative conditions. Fairchild Bros. & Foster, New York. (Jour. A. M. A., Dec. 13, 1913, p. 2158.)

Slee's Antistreptococcic Serum. For description of Antistreptococcus Serum see N. N. R. 1913. p. 215. The Abbott Alkaloidal Co., Chicago.

Slee's Antistreptococcis Serum. For description of Antistreptococcus Serum see N. N. R., 1913, p. 216. The Abbott Alkaloidal Co., Chicago. (Jour. A. M. A., Dec. 20, 1913, p. 2242.)

Lactic Acid Ferment Preparations in N. N. R. Assertions that the lactic acid ferment preparations on the market are worthless caused the Council of Pharmacy and Chemistry to examine those admitted to N. N. R. While past examinations showed this class of preparations to be most unreliable, the present market supply was found to be satisfactory. The products examined were Fairchild Culture of Bacillus Bulgaricus, lactic bacillary tablets, Fairchild, lactampoules, Fairchild, bacillary milk, Fairchild, bulgara tablets, H. W., Co., massolin, Schieffelin. (Jour. A. M. A., Dec. 6, 1913, p. 2084.)

Sanatogen. The fundamental objection to Sanatogen is not its outrageously high price but the attempt to ascribe to a mixture of casein and

glycerophosphate powers not possessed by these ingredients. The claim that Sanatogen is a "nerve food" is an absurdity as is any claim that the casein in Santatogen has a greater good value than the casein in ordinary milk. Physicians who have given fulsome puffs for sanatogen are invited to study the claims which are made for it—the following being one. " * * * It revivifies the nerves, promoting sleep and helping digestion. * * * " (Jour. A. M. A., Dec. 6, 1913, p. 2085.)

The Value of Echinacea. While most extravagant claims are made for the drug, the Council of Pharmacy and Chemistry concludes that, on the basis of the available evidence, echinacea is not entitled to be described in New and Non-official Remedies as a drug of probable value. (Jour. A. M. A., Dec. 6, 1913, p. 2088.)

Texas Guinan. The Texas Guinan World-famed treatment for Corpulency (Texas Guinan Co., Los Angeles, Cal.) appears to be the latest venture of W. C. Cunningham, of Majorie Hamilton's Obesity Cure fame. It is exploited by follow-up letters giving the experiences of Texas Guinan, an actress, and offering the preparation at a sliding scale of prices, ranging from twenty down to three dollars. From an analysis made in the A. M. A. Chemical Laboratory it appears that an essentially similar preparation may be obtained by mixing one pound of powdered alum with ten ounces of alcohol and enough water to make one quart. A second specimen which was examined in the Association's Laboratory contained no alum or alcohol and appeared to be a tragacanth preparation of the "vanishing lotion" type. (Jour. A. M. A., Dec. 13, 1913, p. 2173.)

Colloidal Palladium. A preparation of colloidal palladium, under the proprietary name Leptynol, is proposed as a means of causing the absorption of adipose tissue. The preparation appears one of the many thousand proprietaries produced abroad in the past year and put on the market after meager experimental work. (Jour. A. M. A., Dec. 13, 1913, p. 2179.)

Dowd's Phosphatometer. According to its inventor this is a device "for taking the phosphatic index or pulse of the nervous system." Its originator Dr. J. Henry Dowd, M. D., Buffalo, N. Y., writes enthusiastically of his instrument and of "Comp. Phosphorus Tonic." The phosphatometer is a scientific absurdity which pretends to determine the amount of phosphate in the urine and thus to measure "nerve metabolism." (Jour. A. M. A., Dec. 20, 1913, p. 2258.)

Another "Cancer Cure." Denver newspapers advertise that the International Skin and Cancer Institute of Denver claims to have a cure for cancer. The "cure" is exploited by one John D. Alkire. No doubt those afflicted with cancer, and those who believe themselves afflicted with cancer, will flock to Denver for the "cure." The actual victims of the disease will of course die, but there will be the usual number of recoveries from non-malignant sores that will be heralded as "cures" and thus will make the venture a profitable one. To the honor of Denver it may be said that some of its newspapers refused the advertisement. (Jour. A. M. A., Dec. 20, 1913, p. 2248.)

The Ready Reckoner. The attempt of a proprietary exploiter to pose as the physician's post-graduate instructor comes from the promoter of a "blood stimulating" preparation, Hemaboloids Arseniated (with Strychnia.) It is in the form of a ready reckoner for the diagnosis of pathologic sputum. The thing consists of a revolving arrow, surrounded by circles containing illustrations of bacteria such as no human eye ever saw through a microscope. The physician apparently is expected to point the arrow to what he sees, or thinks he sees, in the microscope and then, through a window in the tail of the arrow, observe the name of the organism and the disease which it produces. The device is an insult to intelligent physicians and belongs in the waste basket. (Jour. A. M. A., Dec. 27, 1913, p. 2306.)

Pa-Pay-Ans (Bell.) An analysis, included with the report of the Council on Pharmacy and Chemistry reecting the product, failed to find one of the constituents claimed to be present in the preparation—the constituent after which the medicine appears to have been named, namely papain. (Jour. A. M. A., Dec. 27, 1913, p. 2314.)

NEW BOOKS

HISTORY OF MEDICINE

With Medical Chronology, Bibliographic Data, and Test Questions.

History of Medicine, With Medical Chronology, Bibliographic Data, and Test Questions, by Fielding H. Garrison, A. B., M. D., Principal Assistant Librarian, Surgeon General's Office, Washington, D. C., Editor of the "Index Medicus," Octavo of 763 pages, many portraits. W. B. Saunders Company, Philadelphia and London, 1913. Cloth, \$6.00, net; Half Morocco, \$7.50, net.

An entertaining and instructive feature of study to every physician is the history of the profession to which his life and energies have been and is devoted, and in the rush of a busy professional career one is likely to overlook many of the stirring features and epochs that should be known to all practitioners of medicine. A heritage bestowed on the medical profession by minds and hands of masters now mingling with the dust of past ages should endow us with a proper and pardonable pride in the fact that we are physicians. It is remarkable, when we consider that medicine, or what passed in the past ages as medicine or the healing art, has not been accorded the prominence or justice its position occupied and its attainments warranted. An army goes to the front with the glamour of colors and patriotism and music; with it goes the medical man, often occupying a subordinate position, bound and hampered by rules made by men who do not appreciate his responsibilities or worth. If he falls in battle a scant line of telegraphic news states to the world that a surgeon was killed, and we soon forget him. How few of us remember that among the very first men landed on Cuban soil to give up his blood was a surgeon of the Marine Hospital Corps, John Blair Gibbs. What a mockery is the arrival home of some favorite political son, the greetings and plaudits he receives compared with the modest reception of a truly good physician who almost daily risks his life in the performance of his duty.

This history of medicine views the subject from the earliest times and shows in its pages the strivings, failures and victories of physicians from the beginning of recorded history to this day, necessarily in a limited way, yet sufficient to inspire the reader with the worth of his predecessors and their right to a niche among the worthies of the past. We note in its pages that the War of the Revolution found us in a state of "unpreparedness" from a medical standpoint and it is intensely regrettable to the medical student that more than one hundred years later the Spanish-American War found us comparatively more "unprepared," and that John Morgan, the first "Director General and Physician in Chief," appointed by Congress in 1775, was unjustly dismissed through the "shiftiness" of politicians and was not honorably vindicated and acquitted until two years later. Like all

histories it discloses the baseness and nobility of men and the spirit of the physician is exalted by its delineation of the noble characters of medicine. From the earliest times the quack and charlatan seems to have held his own and profited by the ignorance and misfortune of his fellowman; a satirist is quoted in the following words: "From the poor man's pay The Nostrum takes no trifling part away." The capable Huxham, a butcher's son, * * * "often had himself summoned out of conventicle at stated intervals * * * and would gallop through the town to create the impression of an extensive practice." Indeed, some of us have not improved on such tricks. Witness the street corner diagnostician, the self-laudation of the gentleman with the lifted eyebrows and the deadliest of all the class, the one who acquiesces by silence when his professional brother is assailed. From these cheap demonstrations it is refreshing to turn to this exhibition of common sense and humanity when they were at a low ebb: "Dear Brother: The bearer is very desirous of having your opinion. I do not know his case. He has no money, and you don't want any, so that you are well met.. Ever yours, John Hunter." How many of us ever heard of Phillipe Ricord styled by Oliver Wendell Holmes as "the Voltaire of pelvic literature—a sceptic as to the morality of the race in general, who would have submitted Diana to treatment with his mineral specifics and ordered a course of blue pills for the vestal virgins."

The writer has drawn from that rich source of medical lore, the Surgeon General's Library. Nearly every page is of interest to the reader and reading it should prove a well spring of pleasure to the physician. We think that some names have been omitted that deserved mention in its pages. The students of that lovable man, John A. Wyeth, who we believe founded the first school for postgraduate work for physicians in America, will incline to the opinion that he deserves a place in medical history, and if we are to mention many surgeons who have proven a help to other surgeons and to humanity we would include the name of A. J. Oschner in the list; however, historians see differently from others and we will excuse these omissions in view of the fact that these names will go down in the memory of medical men despite their omission.

MATERIA MEDICA, PHARMACOLOGY, THERAPEUTICS AND PRESCRIPTION WRITING.

Materia Medica, Pharmacology, Therapeutics and Prescription Writing. For Students and Practitioners. By Walter A. Bastedo, Ph. G., M. D., Associate in Pharmacology and Therapeutics at Columbia University. Octavo of 602 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$2.50, net.

This is a good presentation of modern materia medica, pharmacy and the practical application of drugs in the varied forms now used. The book is made up mostly from lectures delivered by the author at Columbia University and shows the immense amount of work done on perusal of its pages and it is rich in practical suggestions to the physician. Much that might be included in a book of its character has been eliminated for the practical, but not to disadvantage. Among the rather unusual, but useful, contents is noted the use of cocaine in spinal analgesia, as is novocain and stovaine; intravenous application of drugs is also appropriately noted and intratracheal insufflation anesthesia comes in for notice; the administration of neosalvarsan in parasyphilitic disorders such as general paresis and locomotor ataxia followed shortly by the withdrawal of blood, preparation of an autogenous serum for injection into the spinal canal is recognized, but the use of Flexner's antimeningitic serum is ignored. The section devoted to prescription writing is very original and worthy of notice by reason of its originality and soundness.

INTERNATIONAL CLINICS.

Volume IV, Twenty-Third Series, J. B. Lippincott Company, Philadelphia, 1913, 312 pages, illustrated and in color, cloth, price \$2.00. Edited by Henry W. Cattell, A. M., M. D., and many other eminent American and European authorities.

This volume of International Clinics is rich in material for the busy physician. Among the notable offerings to be considered are: "Newer Methods in the Treatment of Neuritis," by A. B. Hirsh; "Interpretation of Dreams Based on Various Motives," by Meyer Solomon; "Neurotic Discomfort and the Law of Avalanche," by James J. Walsh; "The Psyche in Diagnosis," by Robert T. Edes; the latter three comprising an unusual and instructive series of neurological interest and throwing considerable light on the methods of charity in nervous and mental affections.

A most instructive article covering a wide range is "Interesting Surgical Cases," by P. G. Skillern, Jr., which considers the commoner surgical affections we are all called upon to daily handle. The handling of the subjects contains so much sound sense that the article is noticeable to a marked degree.

**SURGICAL CLINICS OF JOHN B. MURPHY, M. D.
Volume II, Number VI. (December).**

The Surgical Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago. Volume II. Number VI. (December). Octavo of 186 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Published Bi-Monthly. Price per year: Paper, \$8.00. Cloth, \$12.00.

This issue of Murphy's Clinics is larger and better than any heretofore issued. Noteworthy among its pages is an exhaustive article on "Artificial Pneumothorax," which lately has been given considerable attention by authorities in the treatment of certain classes of pulmonary tuberculosis. It should be here noted that Murphy was one of the pioneers in this procedure, though in the past few years he seems to have given it less attention comparatively than other phases of surgery. This article contains an abstract of the oration on surgery before the surgical section of the American Medical Association, delivered by Dr. Murphy in Denver, June, 1898.

Among other features noted are clinics on and operation for laminectomy for spinal cord decompression, injection of formalin glycerin for tuberculosis of the spine, cholelithiasis, the usual and very great amount of reparative bone surgery, an index of the clinics held during the recent meeting of the Clinical Congress of Surgeons, and last, but certainly not least in importance, a student's clinic delivered in the inimitable way of Murphy.

**SAUNDERS' QUESTION COMPENDS.
ESSENTIALS OF BACTERIOLOGY.**

New Seventh (7th) Edition.

Essentials of Bacteriology. By M. V. Ball, M. D., formerly Instructor in Bacteriology at the Philadelphia Polyclinic. Seventh Edition, revised. Assisted by Paul G. Weston, M. D., Pathologist State Hospital for Insane at Warren, Pa. 12mo of 321 pages, with 118 illustrations, some in colors. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$1.00 net.

This little volume is a complete revision of the now justly popular Saunders Question Compend with reference to bacteriology and is of value to those who wish a refreshing on such subjects preparatory to taking examinations. The book does not contain reference to any matter except that well known and recognized as standard. We note, for instance, the absence of allusion to Alberhalden's serodiagnosis of pregnancy, the gono-fixation test and similar features, but it does contain the Wassermann reaction for syphilis. Within the scope above noted it will be found convenient and useful.

GENITO-URINARY DISEASES AND SYPHILIS.

By Edgar G. Ballenger, M. D., Adjunct Clinical Professor of Genito-Urinary Diseases, Atlanta Medical College; Editor Journal-Record of Medicine; Urologist to Westley Memorial Hospital; Genito-Urinary Surgeon to Davis-Fisher Sanatorium; Urologist to Hospital for Nervous Diseases, etc., Atlanta, Ga., assisted by Omar F. Elder, M. D. The Wassermann Reaction by Edgar Paullin, M. D. Second Edition Revised. 527 pages with 109 illustrations and 5 colored plates. Price \$5.00 net. E. W. Allen & Co., Atlanta, Ga.

We welcome this work on account of its up-to-dateness. Gonorrhoea and syphilis have been, in a measure, recently revolutionized, the former as to the fixation test for latent and obscure cases and treatment by autogenous vaccines, the latter by the Wassermann test and the wide application of salvarsan and neosalvarsan for its control. In this volume is a good chapter explaining the practical operation of the Wassermann reaction, certainly a new and interesting departure in works of this character, and the first description so far noted by the writer in such works. It also contains a good description of the technic of administration of neo-salvarsan by a simplified method (which we call attention to in our January issue.) Among other things noted of interest is the description of the Hermann and Perutz reaction for the diagnosis of syphilis, which, though held to be not as reliable as the Wassermann test, is nevertheless valuable on account of its comparative sim-

plicity and consequent ease of use by the general practitioner. We do not recall having noticed a suggestion in the treatment of gonorrhoea in which the closing of the urethra for the purpose of retaining instilled fluids is advised, as is suggested in this work, at least in no general work of this character. Altogether this book may be considered a distinct addition to the literature on its particular branches.

DORLAND'S AMERICAN ILLUSTRATED MEDICAL DICTIONARY.

New (7th) Edition Revised and Enlarged.

Dorland's American Illustrated Medical Dictionary. A new and complete dictionary of terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Veterinary Science, Nursing, Biology, and kindred branches; with new and elaborate tables. Seventh Revised Edition. Edited by W. A. Newman Dorland, M. D. Large octavo of 1107 pages, with 331 illustrations, 119 in colors. Containing over 5,000 more terms than the previous edition. Philadelphia and London: W. B. Saunders Company, 1913. Flexible Leather, \$4.50 net; thumb indexed, \$5.00 net.

"Only In Dorland" has become a familiar expression to those who notice medical journal advertising. In this instance it is an expression which the authors and publishers may utter with pardonable pride. A dictionary, ordinarily the driest of books, has, in this case, been made most attractive.

The book is larger than any of its predecessors and contains several thousand words not heretofore listed in such works. The tables are many and complete and the cuts and color work as beautiful as may be seen in any volume of that character. To men who use medical dictionaries Dorland will be placed on the desk in front ready for instant reference and not found wanting. Further praise of the book is not necessary than to say that it is as near perfection as a book of its aims may be up to the present time.

E. MERCK'S ANNUAL REPORT OF RECENT ADVANCES IN PHARMACEUTICAL CHEMISTRY AND THERAPEUTICS.

1912 Volume 26. Paper, 524 pages, with a supplement. Issued by E. Merck, Chemical Works, Darmstadt, Germany, 1913.

Merck's Annual has come to be regarded as a very authoritative statement of recent advances in pharmacy, chemistry and therapeutics. The volume is issued primarily for distribution principally to teachers of materia medica and therapeutics, the medical and pharmaceutical libraries. After these are supplied, there is usually a limited number of each issue left over which will be supplied to physicians and pharmacists on receipt of 15 cents to pay postage; no charge is made for the work. It is distinctly a book worthy of the attention of those who make a close study of drug action.

WANTED: Physician at Elgin, Oklahoma. Address the postmaster.

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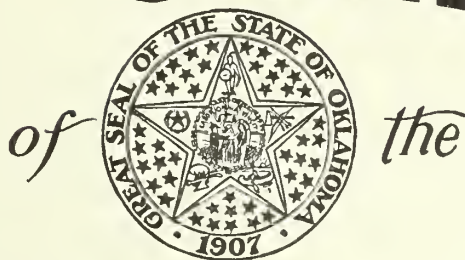
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Next meeting Oklahoma City, April 14, 15, 16, 1914.

Address all communications to the Secretary, Dr. J. W. Duke.

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No. 10

DR. CLAUDE A. THOMPSON, EDITOR-IN-CHIEF.

*TREATMENT OF FRACTURES OF THE NECK OF FEMUR.

Robt. L. Hull, A. B., M. D., Oklahoma City.

I have selected for my topic a rational and satisfactory method of treatment of fractures of the neck of femur. I do not deign to assume for a moment that I have one thing new or original to offer you. Indeed, there is nothing in this paper that has not previously appeared in the writings of Doctor Royal Whitman, and full credit and grateful acknowledgment is hereby tendered him for many of the ideas herein expressed, and for the liberty I have taken in so freely abstracting from his many articles.

The method which I propose to discuss has for a number of years been used as routine treatment of these cases, in many of the hospitals, and with many men, and the results have been so gratifying that I feel very confident that my hearers will not grudge me the time necessary to discuss this method with you.

It is a fact, I believe, and one that will be acknowledged by all, that fractures of the neck of the femur are difficult and unsatisfactory cases to handle. Even with the most painstaking care the end results are often far from satisfactory, and if the patient escapes with his or her life it is usually with a limb partially or completely disabled or crippled. In the acknowledgment of such facts we are forced to confess that there is much to be desired in the way of improvement in the treatment of this class of injuries.

From every point of view, cosmetic, functional and utilitarian, there certainly has been a righteous need and demand for improvement in the treatment of fractures in general. The careful investigations of Doctor Lane, made in England several years ago, clearly established the fact that the average end result was most disappointing, and because of such unfortunate results working men were more or less permanently disabled,

*Read in Surgical Section, Oklahoma State Medical Association, Enid, May, 1913.

and because of such disabilities were much reduced in earning capacity. As the result of these investigations an impetus was given to research work and new and rational methods were introduced, so that today the treatment of fractures is upon a sound and fairly satisfactory basis.

In the treatment of fracture of the neck of the femur beyond the method herein to be advocated, there has been little, if any, improvement for the past half century. Traditional teachings and beliefs have been productive of harm. We have been content with the erroneous idea that fracture of the neck of the femur in a person over sixty could but result in a great disability, and if that person should be so fortunate as to survive the treatment, whether carried to completion or abandoned, he or she would have to be content with disability, with loss of function, with loss of symmetry, and to get about with or without support more or less permanently crippled. And for years we have accepted these results as inevitable and have accepted them without a remonstrance. Many elderly people, believing that they are fortunate in escaping with their lives, face the situation with mental tranquility; but many a young, vigorous man thus crippled registers in no uncertain manner his forcible protest.

At the outset, then, gentlemen, many of these erroneous traditional ideas have got to be relegated to oblivion. We must recognize the fact that fracture of the neck of the femur may occur at any age. We must dispel the idea that the same traumatic force that will produce a fracture in an aged person will only produce a sprain in a child. We must bear in mind that the disability resulting from such an injury is very indefinite in degree and that only a partial loss of function may in some cases follow a complete fracture. I have seen two children, twelve and fourteen years of age, limping to school for a period of five or six weeks, each of whom had a complete fracture of the femoral neck.

The old methods of treatment as described for years and even in the text books of today, and as practiced in many of our hospitals, is merely perfunctory in nature. In no other fracture of the body could we hope to obtain any satisfactory results whatever, if no more effective methods are to be used to secure apposition and to maintain it, until union occurs, than is the custom in the treatment of the fracture of the femoral neck. The cardinal principles involved in the treatment of any fracture is to correct the deformity, to restore symmetry, to secure apposition of the fragments, and to maintain that apposition until solid union occurs. The methods of fixation by means of a T splint or by Buck's extension, with or without sand bags, is certainly ineffective, and whether applied to a young or old person is but a half-hearted attempt to accomplish something definite. It fails in accomplishing every one of the things desired; it does not relieve pain; it does not maintain in apposition and at the normal angle the fragments, even if perfect reduction be first secured. It thus permits of union taking place at a vicious angle. It forces the patient to lie continually on the back, thus tending to great depression and exhaustion. The ultimate result is usually the same, whether or not the treatment is carried to the end or whether it is begun and later abandoned. The re-

sult in most cases is a shortened, outwardly rotated and adducted limb. Indeed this, outside of death, is the usual prognosis and usual result.

The neck of the femur projects outward, inward and slightly forward from the shaft. The angle which it makes with the shaft is about 128 degrees. The normal range of abduction, with the limb extended, is 45 degrees, i. e., the thigh and leg can be abducted until the neck is inclined slightly downward. At this limit of adduction the upper and outer surface of the neck is in contact with the projecting rim of the acetabulum. The upper extremity of the great trochanter lies in contact with the muscles covering the ilium, and the anterior portion of the capsule is made tense. These three checks operate all at the same time.

It must be clearly borne in mind, then, that in order for the limb to be perfect in function it must have its normal range of motion, and the angle which the neck makes with the shaft must be normal, or, as above stated, about 128 degrees. Any lessening of this angle, as in coxa vara, or, as the usual result of the fracture of the neck of the femur, is inevitably followed by shortening and with limitation of motion, especially in abduction. As the object of treatment is the restoration of normal function, and as this can be secured only by restoring the angle of obliquity, one can readily see that a perfect result to be obtained must embrace most fully all the cardinal principles:

1. The complete reduction of the deformity, whether there is separation, impaction or interlocking of the fragments;
2. The restoration of the normal angle of obliquity;
3. The maintenance of fixation until there is solid union.

It is not to be denied that these conditions are manifestly more difficult to secure at the hip joint than at any other, for direct manipulation of the upper fragment is impossible and apposition can only be attained by fixation of the other on the inner fragment. The inner fragment may lie free in the capsule, only attached to the acetabulum by the ligamentum teres. Its distal end may be freely movable, influenced by the tautness of the capsule, when the limb is placed in extreme abduction the anterior and inferior portion of the capsule is tense and holds the ends of the fragments in apposition, thus restoring the normal relationship and angle. To fix it and to maintain it in this position until solid union occurs completes the final step. Unless the normal angle be restored, if union be permitted to take place with a lessening of the angle, there will always be a disability of varying degrees. Therefore, contrary to the accepted teaching, one should always seek to disengage the parts whenever there is a deformity, whether or not impaction has taken place. It is obviously necessary to do this to restore symmetry. Under good apposition and efficient fixation there should be very little danger of non-union. If, on the other hand, the fracture is complete the limb should be flexed and rotated to disengage any portion of the capsule that may be intervening, and then the shortening, having been overcome by traction, the rotation corrected, the limb while in full extension should be abducted until it meets with the

resistance offered by the three checking forces. In this position fixation should be secured by the application of a plaster spica.

The details of application are in general as follows: A piece of ordinary seamless shirting, such as is used for plaster jacket, is cut and sewed in shape to cover the body and limb, or a well-fitting union suit, from which the buttons have been removed, may be used in its place. This is applied to the body, and between it and the skin are placed several long bandages, scratches as they are called, designed to keep the skin in good condition. It may or may not be desirable to insert an inner pad. The patient is then anaesthetized and placed in position for the setting of the fracture and the application of the plaster. Head and shoulders may be conveniently supported on a box of proper height and length, the pelvis resting on a sacral support. A wide, firm band of cloth is then carried around the perineum, the two ends of which are united over the shoulder and held by an assistant. This furnishes counter traction. Another assistant takes the well limb and in full extension abducts it to its full extent, thus fixing the pelvis on that side, and in this way preventing the tilting and also to demonstrate the normal range of abduction. If the fracture is incomplete, the injured limb in full extension is slowly abducted to its limit. If the fracture is complete, the limb is flexed and rotated to disengage any portion of the capsule that may be caught between the fragments and then gradually extended, the shortening overcome by strong traction and counter traction. While traction is fully maintained and the outward rotation corrected, or slightly over-corrected, the limb is gently abducted to its full range, or until the trochanter is fully apposed to the side of the pelvis, the operator meanwhile pressing the trochanter downward and inward. In this position, as frequently before stated, through the leverage secured by the tension of the capsule, the fragments are in apposition. Measurement of both limbs from the anterior superior spine to the malleoli should be made and symmetry established before fixation is attempted. The limb being held in this attitude, the pelvis, ribs, bony prominences of the knee and foot are protected by layers of sheet wadding and the limb and body are carefully covered with flannel bandages. A plaster spica is then applied extending from the mammary line to the tips of the toes. This should be smooth, well-fitting, especially about the pelvis, and should completely enclose and support the buttock, not only to provide antero-posterior support but to prevent the excoriations that are inevitable if the tissues are allowed to hang over the edge of the plaster. When the spica is completed and suitably trimmed, the shirting is drawn over the edge of the plaster and is sewed to an outer covering of shirting drawn over the spica. The skin may be kept in condition by wetting the scratchers with alcohol and by drawing them back and forth.

If properly applied the support is comfortable, because it is efficient and it permits the necessary transportation from one bed to another without fear of displacing the fragments. It does not force the patient to lie flat on the back, and after a few days he or she can be moved from side to side, can be placed on a cot and carried to the open air. In aged

people, to guard against hypostatic pneumonia, or congestion of the lungs, the head of the bed may be raised several inches. It is true that its proper application requires some skill, but surely no more than one has a right to expect of those who assume the responsibility of treating this class of injuries. And the results under this method of treatment, both during the treatment and the end, are far superior to the methods ordinarily employed.

We all hear the danger of disturbing an impaction. What is that danger? Under ordinary methods of treatment it is a mere gamble as to whether the fragments are and can be held in apposition, and if I was to pursue that method I would never think of disturbing the impaction and would be content to have the union take place, even with considerable deformity. We all hear of the physical depression that follows this injury, but this is not due to the confinement itself. It is due to being tied down in bed on soiled, wet and wrinkled sheets, to the persistent pain whenever the patient is turned or moved in any way, to the restless nights and days of dread and fear of the pain that follows every movement. Certainly, under these conditions, depression must occur.

At the end of eight or ten weeks the long spica may be shortened at the knee sufficient to allow action at that joint. At the end of this time, or even before, the patient may be permitted to be up on crutches, with an elevated shoe on the sound limb. Weight bearing on the injured limb should not be permitted for at least four months. The long spica may be replaced by a short one, holding the limb in abduction. This being finally left off, massage, voluntary and passive motion regulated by the sensations of the patient should be instituted. If it is noted that there is considerable weakness and discomfort from weight bearing, this warning should be heeded and instead of encouraging the patient to use the limb, or as is often the case, to force them to do so, it is far preferable to re-apply the short spica and to permit weight bearing without motion. Fixation of joints without inflammatory processes never result in ankylosis.

The best time for the application of the treatment is, of course, soon after injury, but equally good results can be obtained if there is a delay of several days.

In conclusion I will say that I have had considerable experience in this method of treatment for this class of injuries. My youngest patient was two years of age; my oldest eighty-seven. I have had several patients between these ages. In no case has it been necessary to abandon the treatment or to shorten it. Bed sores have not occurred; physical depression has been absent; pain has been relieved, and the final results have been uniformly good. Several of the patients have recovered with absolutely perfect results. In a few the shortening has amounted from one-fourth to three-fourths of an inch.

Some time ago I removed from a lady sixty-eight years old a spica that had been on her for twelve weeks. This woman weighed 300 pounds. She had had a complete fracture of the femoral neck. She had been cared for by a sixteen-year-old girl. I have every reason to expect a most satisfactory result with no appreciable shortening. Last week I

removed a spica from a woman seventy-six years old, who had been cared for in the hospital three months. Her physical condition today is much better than at the time of her admission. The result is satisfactory and she will leave the hospital with a good, sound limb.

I can report numerous other cases, but will refrain. My final words are: I can heartily recommend this treatment to you as eminently satisfactory because it is based upon sound and rational principles.

***DIAGNOSIS AND TREATMENT OF FRACTURES.**

Ira W. Robertson, Dustin, Oklahoma.

A book of no mean proportions could be written on this subject, but I prefer to be as brief as possible, purposely refraining from going into details of minor technique, the enumeration of the kinds of fractures or their causes. Neither is it necessary to specially call attention to the great frequency of fractures, since they constitute an important part of the work of every man in general practice. No field of surgery has been more generally neglected, and hence no results more unsatisfactory, both to the surgeon and the patient. The unsatisfactory results obtained have been due, largely, to a carelessness and inefficiency on the part of the attending surgeon, and a willingness on the part of the patient to accept and be content with a greater or less degree of shortening. But as time has gone by and advances have been made, people are no longer satisfied with a result which simply permits them to get out and around with from one to three inches of shortening in the limb. They want to see an X-Ray picture and thereby be assured that the fragments are in proper apposition. If the ends of the bone are not together, they want to know why, and will insist that they be put together. Physicians are responsible for this uneasiness on the part of the patient to a great extent in that they do not more fully explain to the patient the nature of the injury that they may more fully understand the condition.

When a bone is severely broken it is not always possible for it to be so treated as to recover fully its normal condition, as well as position, yet this fact is not always explained to the patient, and he is easily led to believe that a more perfect result could have been obtained.

Diagnosis—In making a diagnosis and treating a fracture, there are several things we should constantly bear in mind: First, the osteo-genetic forces of the bone, as there are some constitutional diseases and conditions which cause a hindrance to the process of repair—age, sex, pregnancy, location, acute infection, anemia rickets, and syphilis. Probably none of these, except syphilis, are of material importance.

Many of the injuries in the neighborhood of joints, and even in the long bones, which were formerly thought to be sprains or bruises, are found to be fractures when subjected to the X-ray. These may extend into joint or extend in either direction along the shaft. The prompt recognition and proper treatment of these injuries is of the greatest moment, both to the patient and surgeon.

**Read in Surgical Section, Oklahoma State Medical Association, Enid, May, 1913.*

We are all aware that the use of the X-ray is very necessary, and its use confirms or disproves the diagnosis, but it requires considerable practice to rightly interpret an X-ray picture, notwithstanding I believe all positively known, or suspected or probable fractures, should be subjected to the X-ray whenever such a procedure is possible. But, when we cannot bring into use the helpful X-ray, which in many instances is practically impossible, especially in some localities, I believe it is our duty, especially in certain classes of fractures, to explain to our patient fully how uncertain it is for us to know when the ends of the bones are in proper apposition. Under such conditions we should bring to bear every means at our command to arrive at a clear and correct conclusion as to the character and extent of the injury, carefully considering every anatomical point and landmark, careful comparison of the injured part with the uninjured part, when possible, and the study of opposing forces. One may thus be able to pretty accurately determine the extent and character of the injury without the aid of the X-ray.

An accurate account of the manner in which the injury was received is of great importance, and if the patient is able to state the manner in which the force was applied, we can determine the damage more definitely and apply the treatment more intelligently.

Treatment—Fractures being divided into several classes, and each class requiring treatment directed to the condition in hand, it is not practical or possible in the scope of this paper to mention all of them. In a general way the treatment has for its prime object the setting and fixing of the broken bone, and this object is obtained by some form of splint or fixation bandage or appliance, and these are so numerous and varied that it would be impossible almost to name them all.

The treatment of closed fractures has as its primary object the coaptation of the ends of the bones and their fixation. An anesthetic is always indicated, and when there are no positive contra indications, should be used.

When the fragments are properly coaptated and the limb, or parts, fixed by suitable splints, casts or adhesive strips, as, in the judgment of the surgeon, is best, constitutes the chief points in the treatment of simple uncomplicated fractures, except those of the patella and the olecranon, which, in addition to a comfortable dressing, are usually, and I believe should be, treated by the use of some mechanical device that will insure more complete fixation of the fragments.

The tendency towards surgical interference in, and management of all kinds of fractures, is rapidly gaining ground. Formerly the opening up of a fracture was looked upon as being a very serious procedure, but to-day operative procedure is looked upon in an entirely different light—in fact, the open method of the treatment of irreducible fractures is now considered the only proper treatment in all cases where there is no positive contra indication to operative procedure. Since perfect reduction and retention of fracture of the long bones is found to be the exception rather

than the rule, and since perfect results are only expected when normal anatomic relations are sought and maintained, many surgeons consider the operative treatment of all fractures of this class the method of choice. In other words, many of them maintain that practically all fractures, where there is a likelihood of anything interfering with the complete reduction and proper co-aptation, should be opened up at once and the ends of the bones placed as near in anatomical apposition as possible and maintained in such position by means of mechanical appliances—such as the Lane plates or Martin bands, with which you are all more or less familiar.

Without attempting to mention all the mechanical devices that have been used, I will say that perhaps the Lane plates are more used than any other device for maintaining co-aptation of fractures of long bones, although I saw the Martin bands used exclusively in the open method of the treatment of fractures in the Charity Hospital in New Orleans.

There is no question but that the Lane plates or the Martin bands, neatly and snugly applied and uncomplicated by infection, yield good results and very much better and more useful function than is usually obtained by other and ordinary methods of treatment. If there was no danger of a possible infection, and a consequent bad result from the use of mechanical appliances, or if the operative procedure could be conducted under the aseptic conditions and the technique brought to bear as in operating on other parts of the body, it would certainly be the greatest advance in modern surgery. But we know that infection in a compound fracture is always a serious complication, and it is true that, when a recently fractured bone is exposed, it is very much more likely to become infected than most any other part of the body; nevertheless, Lane and Murphy have repeatedly demonstrated the value of mechanical devices in the treatment of fractures. They have perfected the technique and emphasized the necessity of having proper instruments with which to work. They have shown that it requires a high degree of surgical skill to properly handle these injuries. Nothing but absolutely sterile instruments should be allowed to come in contact with the wound; not even the gloved finger or hand should touch any part of the operative field. Such a degree of perfection is necessary before one can expect to successfully do this class of work.

Murphy states that, in his experience, 80% of the cases of compound fractures were infected by the police surgeon making an examination of the injured parts with his fingers, or by his trying to clean them up with soap and water, alcohol, bichloride solution, etc. We now know that this is about the best way to infect a wound. Washing and scrubbing simply works the dirt deeper into the injured parts and lowers the vitality of the injured and exposed cells, thus diminishing their resistance and does not destroy the invading germs that may be or come in contact with the parts. It has been found to be much better in compound fractures, with extensive injury to the soft parts, to do no washing at all, and above all not to use soap and water. If gross dirt can be seen in or about the wound it should be picked or wiped away and the whole area thoroughly painted with

tincture iodine. If the ends of the bone have been exposed they should be carefully wiped off and thoroughly painted with tincture iodine before being replaced. Too much praise cannot be given the iodine method. When it is properly applied, it is without doubt the simplest, and withal, the most efficacious method of preparing the skin.

At the Charity Hospital, where they have a large emergency service, and hence a great many compound fractures of all kinds, I saw tincture iodine used in the manner indicated to be of the greatest value and it is the regulation way of treating this class of cases in that institution.

DISCUSSION.

Dr. McComas, Elk City: I have treated a few cases. I came in late and did not hear all of Dr. Hull's paper, but what I heard I was very interested in. The patient I was unfortunate, or fortunate to treat, was managed on a much simpler technique and he made a most excellent recovery. He fell from a scaffold and fractured the neck of the femur. When I saw him he had been carried to his home and put on a hard mattress. We put him on extension and used the sand bag. I adjusted the fracture and used the sand bag for four weeks. The man has the least little limp now. He lives in Oklahoma City. This man never had any trouble. He was an old man past 50 years of age, not very strong physically, and I was afraid to keep him on his back, so I put a splint on and put him on crutches. The other case I had was a man over eighty years of age and he died. I never got him up and of course that is the usual result of those old and large and heavy. From what I heard of the Doctor's paper I think it was a very good one.

Dr. Hartford, Oklahoma City: I have a case I wish to mention. It is the case of a woman 76 years of age; has been under my supervision for the last three years. This person was in poor physical condition, having thrombosis. When this accident occurred she was turned over to the surgeon and taken to the hospital, and while she was there I kept in touch not only with the condition of the fracture, but also with her general condition, and I will say that when she left the hospital she was in decidedly better condition physically than she was when she went in. It seems that in this case her comfort in the bed was very good. She complained more of one condition than anything else, and that was a simple pressure on the back. There was a place just back of the shoulders she complained of, but there was no bed sores and she was handled in the hospital with great ease and comfort.

Dr. Jolly: I wanted to discuss the paper by Dr. Robinson on open fracture. I was glad to hear him lay stress on asepsis. A great many are treated in the smaller towns away from hospitals and it is almost a matter of impossibility to have perfect asepsis in smaller places. I think it is dangerous to use the open treatment of simple fractures without the proper treatment assets and an operating room. I know a great many think it the ideal treatment, but I do not think it is. I think it is dangerous to attempt the open treatment of fracture without the proper surroundings.

A STUDY OF FIFTY CASES OF PYOSALPINX.

W. E. Dicken, M. D., Oklahoma City, Okla.

In order to have a comprehensive knowledge of the diseases of the fallopian tubes, or oviducts, a knowledge of their anatomy and embryology is requisite.

The fallopian tubes have a common origin with the vagina and the uterus from the Mullerian ducts; the upper portion of these ducts remain open externally and that portion forms the pavilion of the tube. The Mullerian ducts unite lower in their course to form the uterus and vagina, and the limit of this union is the insertion of the round ligament.

The marked similarity in structure and the continuity of the mucous membrane explains how readily diseases of the vagina and uterus extends to and involves the tubes.

Of the three coats of the fallopian tubes, the serous is derived from the peritoneal layers of the broad ligament, which incompletely invests the tube, leaving its lower border uncovered, where the two layers diverge.

The muscular coat, with its deep, circular and superficial, longitudinal fibres, gives great resistance to the tube, so that it may undergo quite a large amount of dilatation without rupturing. The rupture which so frequently follows tubal pregnancy, are not due so much to the dilatation as to the degenerative changes which occur at that time in the wall of the tube itself.

The main factor which characterizes the third or mucous coats of the tube, is its ciliated epithelium and its longitudinal folds which possesses no glands.

The clinical consideration of this tube is explained by its direct communication with the external genitals and the abdominal cavity. They are in the folds of the broad ligament, and their average length is from ten to twelve c. m. It is divided into the isthmus, the ampulla and the fimbriated extremity. The uterine extremity, or isthmus, is its narrowest portion and will barely admit a bristle.

The ostium abdominale is surrounded by a number of fimbriae, which are formed by the outward bulging of the mucous membrane. The mucous crypts formed by the folds of the mucous membrane of the tube are said to be granular in character, as they secrete an albuminous fluid.

We find that the fallopian tubes are affected under two classifications of diseases—inflammatory or neoplastic. We class the inflammatory according to the extent of the involvement of the tubes. The neoplasms affecting the tubes will not be discussed in this paper, as attention will only be directed to tubes of an inflammatory character.

Salpingitis indicating inflammation of the tubes, peri-salpingitis has reference to the inflammation of the peritoneal covering, while the endo-salpingitis is the term applied to the inflammation of the mucous lining of the tube.

Then we have an accumulation of serous fluid within the tube, or hydrosalpinx, then accumulation of pus, or a purulent collection, which is termed pyosalpinx. Hydrops tubae profluens is the term applied to the accumulation of fluid in the tube, in which the uterine end remains permeable and as the fluid increases, permits the excess to be drained through the uterine canal. Hematosalpinx is the outcome of ectopic gestation, hence it is beyond the scope of further discussion here, but later we may take recognition of tubercular tubes with their fimbriated extremity.

According to our best authorities, gonorrheal infection is said to be the most usual cause of inflammation of the tubes which we established in our clinic. It is impossible for a definite history to be obtained in every case, but from the history with the pathological findings, over sixty per cent of our cases proved to be of gonorrheal origin. The remaining cases were caused by endometritis, either puerperal or traumatic infection, while a small per cent were tubercular.

We all recognize the fact that tubal inflammation is caused by exposure to cold, too frequent coition, or violent exercise immediately before menstruation. Unfortunately, in many of our cases, intra uterine exploration, with introduction of sounds and the employment of stem pessaries, were classed among the etiology of tubal infection, for there is direct relationship between the endometrium and the tube. The practice of our older physicians, now fortunately nearly obsolete, of making intra-uterine applications of caustic or astringents, with routine introduction of the sound, and irrigation of the endometrium, was very largely responsible for endometritis and secondary salpingitis.

In the microscopical analysis we found beside the gonococcus, the staphylococcus, streptococcus and bacillus tuberculosis; we did not find the bacteria coli commune, or the pneumococcus, as some have found.

We may tabulate, finally, another cause of tubal disease is neglect of proper attention being paid to our pubescent girls. Engelman, in a tabulation of five thousand cases among school girls, found that sixty per cent were afflicted with more or less menstrual suffering, and no doubt a large proportion of these presented more or less symptoms of tubal congestion, which, if left to nature to rectify, might be a serious tubal disease later in life; for instance, a child may be infected per vagina with the colon bacillus and the infection continue until it reaches the cellular tissue of the broad ligament, through the lymphatics, and cause tubular trouble, or a pelvic abscess, by continued growth of infection.

As we have stated, about forty per cent of the cases were due to traumatic lesions, either of the cervix or perineum, from childbirth, or forcible dilatation of the cervix, causing a bruised or torn endometrium. This trauma leaves a nidus for the absorption of the staphylococcus or streptococcus, first, through the lymph spaces, second, the lymph vessels, and third by the veins and arteries, leaving a likelihood of a thrombo-phlebitis, and fourth, by the continuity of the tissues.

These lacerations being in a zone fearfully difficult to keep aseptic, would give us far more uneasiness if it were not that nature had prepared the field by the coffer-daming, infiltration, edema and swelling, which preceded parturition. This gives the field a grade of resistance, therefore we so seldom have infection of the cellular tissue around the vagina, or around perineal laceration.

A laceration of the cervix uteri affords a better field for the discrimination of the poison, on account of it being more richly supplied with lymphatics, than other portions of the genital track, therefore we find that laceration of the cervix is the most common atrium of admission of infection into the pelvic cellular tissue. You have then a cellulitis occurring in the cellular tissue of the broad ligaments, from a laceration of the cervix uteri, just as you would have a cellulitis occurring in the forearm, as a result of a finger infection.

When we have an infection in the cellular tissue of the broad ligament, and an infection in the sub-peritoneal cellular tissue behind and in front of the peritoneum, you may open the peritoneal cavity, and find only a few flakes of lymph and a little fluid, which the late Dr. Fenger called dry peritonitis.

We can readily see in these cases why there is not a lot of pus in the peritoneum, because the infection is in lymphatics beneath it, from which the patients die on the third or fourth day. This peritoneum, when it is cut, resembles the unbroken skin overlying a subcutaneous phlegmon.

When the infection is not of a streptococcus origin, but of a staphylococcus origin, the staphylococcus do not pass through the lymph spaces readily and are often arrested in loco and the patient has circumscribed abscesses, or pus accumulation, in the broad ligament, or in the cellular tissue of the peritoneum. This condition submits our patient to a phlebitis, peri-phlebitis, or a septic phlebitis, which may form a septic emboli and be carried through the patient's system.

Then our next site of infection would be placed in the placental base, and when it does take place there we find nothing separating the infection from the mother but a thin layer of membrane, and when the infection is very virulent, the micro-organism penetrates the membrane and you have infection in the vein, followed by thrombophlebitis, septic emboli, septic infarcts, endocarditis and death.

We have an infection of the broad ligament under this condition very seldom on account of the sparse lymph supply to the uterus above the cervico corporeal junction. This class of infection of the placental base is often the result of the criminal abortionist's attempt to evacuate the uterus, therefore, introducing septic material from without, which law was established by Prof. Schrode in 1883, which law is, that all infection practically comes from without. To use his own words, you should never cross the threshold of the vagina in an automatic abortion until you are ready to go to the dome of the uterus.

In all cases we found, of broad ligament cellulitis, or cellulitis of the pelvis, involving the broad ligament, the uterus was fixed, whereas in pure

Neisserian infection it was more or less movable, because the Neisser micro-organisms do not pass through the lymphatics, and therefore never produce a cellulitis.

In all cases we found the end of the tube sealed, whether it be streptococcus, staphylococcus, or gonococcus infection, except in simple tuberculosis of the tube the fimbria was undisturbed.

In all cases with pus in the tube, our treatment was to remove them, whereas in the cases of hydrop, which never occurs following Neisserian infection but is always a pus tube, we freed the fimbriated end and by sewing the edge back, made an ectropium of the mucosa and the normal function of the tube will take place. Pregnancy after the operation is always possible when the infection is of the staphylococcus or streptococcus type, and when the condition is simply one of hydrops.

In conclusion, we find the atrie of invasion of the infection to be from below the vaginal, and from above the abdominal, or through the circulation, and the principal route of the septic transmission, being the lymph spaces and vessels, blood vessels and continuity of tissue, and that this infection may be caused from the Neisserian, pneumococcus, pyogenic, tuberculosis, colon bacilis; and the pus tube being lined with mucous membrane, upon infection makes a stricture at the uterine end, usually five-eighth inches from the cornu and a sealing of the frimbriated end, by its agglutiation to whatever surface it can contact itself with during primary infection, to prevent leakage, into the pelvic peritoneum, this making a complete pus sack, with the power to refill, from the infected mucous membrane, therefore it should be enucleated and not drained, and on the other hand drainage is the only treatment for a broad ligament abscess, or pelvic cellulitis, and treated the same as you would treat a cellulitis in any other part of the body.

I am indebted to Dr. Clarence E. Lee, pathologist, for his microscopical assistance and preservation of the specimens which are shown in connection with this paper.

DISCUSSION.

J. F. Kuhn, Oklahoma City: Some of you perhaps will remember that this is a question that lies very close to my heart. I think we had a very excellent paper and one covering the ground very fully from one standpoint. Let us hear another standpoint. I believe in not letting a case reach the stage these unfortunate women have reached. I have visited a lot of cases like these. I believe that 95% of these women, if taken before they reach that stage, could continue in a child-bearing condition. My experience has been that the gonorrheal cases are the ones that can be saved. The tubercular cases can be saved only once in awhile, and staphylococcus cases can be saved in about 50 per cent if taken early. Now, when these cases are saved, the patient is always restored to good health, etc., but let us begin early in these cases. Let us assume that our duty begins at the beginning of the infection. If we do this we will not have trouble that the system will not take care of. The only treatment that

does good is elevated rest in the right position. Let us treat these unfortunate women along rational lines. Let us save these tubes and save these ovaries. Let us begin with the beginning of the infection. Put your patients actually to rest and treat them. Let us give them the salt solution we have been giving for peritonitis. Then they will be able to bear children the same as if they were not affected. If you wait you have to perform these operations. Just remember that a woman is immune to her own pus. Not one of you but what will close the belly, just as you found it, and she gets well, so she is immune to her own pus, and if she desires an operation to restore her to child-bearing again it can be done.

R. V. Smith, Guthrie: I listened to the Doctor's paper with a great deal of interest, for I have had a number of cases similar to this the Doctor mentioned in his paper. Now it is a fact that these cases exist and it would be a happy moment indeed if we could meet those cases face to face. Unfortunately for us, and more unfortunately for the patient, we see the conditions too late that the Doctor so beautifully portrayed in his lantern slide. In the majority of these we never see that condition in the first stages, and in some cases it develops so rapidly. When is the proper time to operate on a case of pus? It is a subject that I have paid a great deal of attention to. I do not allow it to get so close to me as Dr. Kuhn did. The majority of cases I have had are anxious to get rid of these troubles so they can enjoy good health.

W. E. Dicken: I know the tube has great power to adjust itself. I think Dr. Davis said in an article he wrote the other day that in 2000 cases he had followed up, that he tied the tube in the middle; that he cut the tube in half and the woman still became pregnant; that he cut it off at the uterus and the woman still became pregnant; that the only way to keep a woman from becoming pregnant is to cut the tube off in the uterus. I think that when a tube is diseased it never gets over it. The Doctor took issue with me in regard to removing the ovaries. I used to patch it up and sew it up and put it back. I have quit doing that. I think it is really detrimental to monkey with the ovaries. I believe you better get rid of them. I believe in letting them take care of themselves unless they are badly diseased. The time to operate on these cases depends on the case. In my work I usually wait until nature can throw out a protection and then you can believe that she has enough resistance to stand the operation. Some you will have to treat probably four or five weeks. I believe we should wait until nature reasserts herself, until the temperature and pulse become normal. In regard to drainage, I am not in favor of any more than I can help. I believe it is safer where you have a pelvis full of this pus to put in a drain for 24 or 48 hours, and then let nature do the rest.

ORBITAL CELLULITIS.

Dr. M. K. Thompson, Muskogee, Okla.

The inflammations of the cellular fatty tissues of the orbital cavity are of rather frequent occurrence, being unilateral, bilateral, acute, sub-acute or chronic, terminating in resolution, or, as frequently happens, in suppuration with all its destructive changes and disastrous results, caused by an extension of the inflammation to or an infection of the loose areolar tissues of the orbit; infection by injuries from foreign bodies or as a result of operations; infection or extension of inflammation from neighboring parts and occurring with or in diseases of sinuses, teeth, throat, glands and abscesses, also with such diseases as meningitis, influenza, typhoid fever, scarlet fever, smallpox and with erysipelas, especially developing a severe type which frequently proves fatal.

In the milder forms there may be scarcely any symptoms except a slight exophthalmos and diplopia, without constitutional disturbances or inflammatory changes. In acute suppurative varieties, there may be all the symptoms of sepsis, such as chills, fever, headaches, pains around the eye, deep-seated in nature, which cause much discomfort on moving the eyes, or even an inability to move them, due to the swelling of the tissues behind the eyes and the great amount of pressure, which produces a protrusion of the ball, which is one of the prominent symptoms. The sight is not usually impaired in the milder cases, or the earlier stages of the most serious cases, but later, as the inflammation progresses, the vision may become impaired or be wholly destroyed, because of the inflammation of the optic nerve, either as a retrobulbar inflammation or an extension into the eye, with an inflammatory affection of the nerve head, which may be followed by atrophy.

If absorption takes place without suppuration the eye may be left in practically a normal condition, or there may be a limitation of motion, an exophthalmos or a diminution in vision, but unfortunately so many of these inflammatory conditions proceed unsatisfactorily, terminating in suppuration of not only the cellular tissue but the eyeball itself, and does not even stop with the eyeball, for suppuration may cross into the cranial cavity, causing a suppurative meningitis or brain abscesses, which most usually result fatally. Because of the delicate mechanism of the eye, of the proximity of the brain cavity, and the tendency for this tissue to suppurate and either destroy the functions of the eye, leaving the patient thus marred for life, or producing a meningitis or abscess of the brain, which cause paralysis and even death itself, the prognosis must in all cases be guarded and considered grave. The treatment must be symptomatic, though energetic, and prompt, in order to get best results. The cause must be found and removed if possible; tonics and supportive treatment for the patient when necessary; locally, hot applications and bloodletting. As soon as there is evidence of pus an opening must be made deeply and thorough drainage established. It is not necessary to wait for a pointing, as early opening, even though pus is not found, if of great benefit because

of the free bleeding, which results in the lessening of the tension. There may be multiple abscesses of the tissue, so that a number of openings will have to be made; also abscesses may form in the eyeball, producing great pain and necessitating opening the ball. With free drainage of pus usually the inflammation quickly subsides and the patient becomes comfortable. There is not much else to be done after this. If the damage has been confined solely to the orbit the worst is over, but if the pressure has forced the pus into the brain cavity there may yet be these symptoms and conditions with which to deal and treat. Fuchs says: "Orbital plegmons may lead to thrombosis or cavernous sinus, although the converse may happen."

Was called to see a case, Mr. G., who had had an injury to the thumb of the right hand some weeks previous, which, because of infection and blood poison, necessitated the amputation of the thumb. At the time I saw the case, there was no soreness or inflammation, the stump of the thumb having healed up nicely, yet the patient had about two degrees of fever. The man, usually an active and energetic fellow, was somewhat sluggish, with no inclination to get out other than his desire to do so. On examining the eyes I found some cellulitis, slight protrusion of the eyeball, no changes in the retina, vision good, movement of the eyeballs perfect. The cellulitis under hot applications and treatment, with tonic for the patient and laxatives, cleared up in two or three days. In about ten days a similar condition occurred; still could not find any changes in the eye. This cleared up in a few days, as before. The patient went away under the advice of his physician, who believed the change would help him, but died in about three weeks, with some brain condition, probably abscess.

DISCUSSION.

Dr. Weiner, St. Louis: There is not much left for me to say. I might say that I think as a rule enough stress is not laid on the importance of orbital cellulitis. I think the majority of the cases of inflammation of the orbit are primarily caused by trouble in the frontal sinus. In the case the Doctor reported it looks very much like he had one of those cases of primary infection.

Dr. Thompson: I did not have the case. At the time I saw the case I insisted that they have a blood test made. I do not think the doctor did make the test. They had me come see it again and it cleared up in a few days, on giving purgatives and tonic. They got tired of the treatment and that is why they called me in, and they could not understand why the case would not get well. They said he became unconscious and blind, but on examination I could not tell any change in the eyes. At the time I saw him the vision was normal, but before he died he became blind, and not only blind, but out of his head and raving. They claimed it was brain abscess.

The Chairman: Did he ever have any pus in the orbit cavity?

Dr. Thompson: No. The trouble was only there a few days and after the treatment it would clear up. He had no tenderness. Just what the trouble was I have never been able to determine definitely. He never did have any pus. He must have had an infection of the brain for a good long while.

Dr. Barnes (Chairman): Do you think it could have been possible it was one of the sinuses?

Dr. Thompson: I think not. It must have been some condition at the base of the brain that caused the cellulitis.

Dr. McHenry: This case brings to my mind a case in which I took very great interest. The case came there with the history of having a boil or pimple on the face followed by orbital cellulitis. When I first saw the case they had opened the tissue above the place and had good drainage, but the patient had some bad symptoms. He did not hear at all in one ear. The patient died and we followed him down to the morgue. A post-mortem was held and revealed an abscess in the brain in the lower portion, and he had an abscess in the lung and in the kidney on the same side. The boil preceded the orbital cellulitis. The patient evidently died from general septicemia. Apparently the first infection was in the cheek. It was a case that caused lots of interest at the time. There was a big crowd at the post-mortem. There were good doctors there that had never discovered the brain abscess nor the lung abscess.

Dr. Mocney: I will say that in a case where there is any suspicion of this it is necessary to take the color field as well as the pupil field. Because we know that a patient that has normal vision often shows an invasion of the color field, or a dipping in of the color field at several points. I know I have not done this enough in previous years, and it has been brought home to me in severe force in later years.

Dr. Thompson: I appreciate the interest you have shown. These cases I have referred to were of great interest to me, and I believe that it was due to the conditions I stated, although I was not able to prove it; and I was glad to have them hear me out. We frequently have so many of these cases that it is difficult for us to hunt for the reason of them and the cause and just how to treat them. We have not been able to locate definitely the abscessed condition of the brain. If we had been, a drainage and opening might have saved his life. He was sent away, for some thought a change of climate would do him good, and only about three weeks afterwards he died. I have been unfortunate recently in having several of these cases. I had recently a case of erysipelas of the face. The young man had an abscess on the nose and opened it, and on the fourth day erysipelas started and he died within four days. One other case recently was where a young man was tacking a shoe on a horse and the end of the hammer struck his eyelid and made no abrasion whatever. He was two or three days before coming, and at the time he came the eye was bulging and protruding and very soon suppuration set in and he lost the eye. These are the cases I have had recently that caused me to write the paper.

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EDITORIAL

"MEMBRANOUS CROUP" AND "SCARLET RASH."

Once before in this Journal the above caption was used editorially in connection with the rare and rapidly disappearing tendency on the part of an infinitesimal minority of physicians who clung to the old and antiquated fallacy of attempting to differentiate between the different varieties of throat infections now generally and widely known and accepted by scientific physicians under the term "Diphtheria." Dr. Cressy L. Wilbur, Chief Statistician for Vital Statistics, and Wm. J. Harris, Director of the Bureau of the Census, Department of Commerce, have this to say on the reporting of "croup:" "Is a most pernicious term from a public health point of view; is not contained in any form in the London or Bellevue Nomenclatures, and should be entirely disused. Write DIPHTHERIA when this disease is the cause of death." Every late modern medical authority, almost without exception, places the matter thusly: "Laryngeal Diphtheria (Membranous Croup)." The primer of sanitation partially adopted by the Oklahoma Board of Education, designed for the use of the veriest beginners, not in medicine, but in the ordinary acquirement of a wide range of useful knowledge, adopted by many states wholly.

and many counties and cities in part, disposes of the matter in these words: "Diphtheria of the larynx is the disease often called membranous croup." Bruck of Berlin takes the view that until any membranous infection of the throat is proven "not to be so" it should be regarded as essentially infectious and as diphtheria and so treated. "Membranous croup" is no longer considered as an entity or even taught in many schools; our books are only cluttered up with this useless and dangerous term or expression by reason of the fact that in the dim and distant past some one attempted to make of membranous croup and diphtheria different affections. This disposition to differentiate them is laudable, but the proof is so complete and overwhelming that even the exact and authoritative dictionary makes them synonymous. It would seem with this showing that there is no longer a possible reasonable excuse on the part of anyone to make them different infections, except after the most thorough and exhaustive proper bacteriological examinations fails to disclose the Klebs-Loeffler bacillus. Clinically, as says Bruck, they should be regarded as diphtheritic until "proven not so."

Now, referring to another and similar dangerous idea, rather largely prevalent with a certain precocious and ignorant element of the laity who blandly take unto themselves the functions of the diagnostician, and, also to a small minority of physicians who pretend to find a difference between scarlet fever and "scarlatina." The same authoritative dictionary makes the two synonymous; every text-book or writing worthy of the name makes them so, yet we have that same infinitesimal minority dangerously leavening public health work and endeavor and perilling the lives of people in a silly attempt at differentiation. The writer recalls an entire school infected with a rash, pronounced scarlet fever by competent physicians and their work discounted by a man in the profession who called it "scarlet rash," not scarlet fever. Recently a child of Christian Scientist parentage presented herself at the public schools of Muskogee with a noticeable rash. Investigation by the health officer showed the disease to be scarlet fever; the parent stating that the child "was a little sick" previously; that she called a neighbor over the 'phone, who stated, after hearing the description of the mother, "Oh, no! that is not scarlet fever, that is 'scarlatina;' that is not contagious." Now, we as physicians cannot legitimately criticise this action on the part of these women as long as we have, even a small minority, in our ranks who split hairs and pretend a wiser differentiation of such a disease than our best authorities assume. The milk of the whole question, so far as physicians are concerned, may be summed up in the common sense attitude they should assume in the presence of possible infectiousness—isolation and quarantine. Such a procedure never harms any one and may save lives, and it should be the aim of every true physician to reduce to a minimum, communicable diseases. In the face of modern knowledge of infectiousness, every communicable disease may be properly chargeable to either ignorance or carelessness and the medical profession should unitedly attempt to stop the merited reproach the presence of infection implies.

GONORRHOEA AS A PRODUCER OF PELVIC PATHOLOGY.

Surgeons doing a minimum amount of pelvic work have from the earliest times noted that gonorrhoea and its complicating extensions to the pelvic adnexa have played a most important role as a causative agent; those doing large amounts of such work are enabled to make up striking tables showing the etiologic factor in more than one-third of such cases, in the female, to be due to Neisserian infection.

We are very much concerned with this fact and to every one familiar with the conditions met at operation, the conclusion must be evident that in many cases nothing short of a complete and mutilating operation will fully cure the patient. This is no doubt, due to the fact that such infections are almost always bilateral and the removal of a part of the uterine adnexa does not affect a cure; even when the parts allowed to remain seem not to be infected, they are likely to become so at a later time and be the cause of another operation or continued suffering, if allowed to remain. We are unfortunate in not having something other than surgical treatment at hand with which to combat this condition, but so far that seems to be the only recourse to many physicians, certainly the only recourse to many of us after the infection has progressed to a severe degree.

An intelligent prophylaxis and thorough and early treatment of the infection before it has reached its maximum is the remedy we have at this time and when followed promptly will give a good percentage of success. Vaccines, autogenous and stock do not benefit the early stages of the infection. At this time our activities must be directed to handling the local condition and this is best done by carefully treating every part of the vagina, cervix and urethra with some good agent, preferably silver and iodine. This treatment should be carried out often enough to do good, more than once daily if the secretion is profuse, and in every case at least daily.

After progression of the trouble to the uterine cavity and tubes a careful application of iodine will in nearly all cases do the most good. The writer has lately followed the advice of Bovee and has introduced, under considerable pressure, a three and one-half per cent iodine daily with good results. Contrary to expectations the treatment is not as painful as one would think and is worthy of trial.

Excepting peritonitis—and this is really what we are dealing with in certain stages—no infection is so prone to react badly to injudicious handling which, in fact is trauma of the parts, as is a fresh gonorrhoeal infection in the female. When the disease is at its intensity ice bags, mild astringent antiseptic douches, lightly given with no force behind them, laxatives, liquid food and absolute rest in bed is the procedure netting the best results. Hardly any condemnation is severe enough for the surgeon who operates in such a juncture, and the necessity for such hurried and inopportune work rarely ever exists, if at all. It will be found that the longer the patient rests, as a rule, and the longer after the maximum intensity of the infection is reached, we wait to remove those parts

believed to be beyond repair and which we believe to remain at the peril of the patient, so much greater will the patient's best interests be conserved. The entire situation may be briefly summed up in the following points: First, prophylaxis, correct and complete; second, local treatment, thorough and often enough to do what we desire to accomplish—destruction of the infecting agent—and, last, operative interference at the logical moment, removing as little as possible, yet every source of danger if left with the patient.

THE TONSIL, A POTENT PROMOTER OF DISEASE.

It would seem hardly necessary to call attention to the hackneyed subject of tonsillar infections, but the experience of physicians gives them daily striking examples of the damage resulting from infected tonsils, not only in the child, but the adult as well.

Passing at once from the fact that many people are continually infected and reinfected from this source and what is at first a mild matter often becomes so severe as to be beyond repair, and also from the fact that a large percentage of infections classed as rheumatism with a resultant permanent heart lesion are directly traceable to this offender, we arrive at the duty of the physician in the control and proper treatment of handling such cases.

Tonsil removal, a few physicians to the contrary, rarely results in anything but good, the good being almost incalculable and proportionate to the need of removal. Children stand the trivial necessary operation so well that delaying it, when needed in their case, amounts to an inexcusable act of omission on the physician's part; with the adult the danger is somewhat increased, both as to the possibility of hemorrhage and infection, but in these cases those dangers are rather to be remembered and guarded against as far as can be and never to be taken so seriously as to be a contraindication of removal.

In children the cessation promptly of attacks of tonsilitis, laryngitis, pharyngitis, bronchitis and resulting bronchial pneumonia after removal is so marked as to seriously impair the physician's income and the little one usually shows a marked physical improvement, so marked as to be a matter of congratulation and elation to all concerned.

PERSONAL NEWS

Dr. A. H. Herr of Okmulgee has returned to his practice after an extended absence on account of suffering an attack of typhoid fever. He was with relatives in Van Buren, Ark., during most of his illness.

Dr. P. J. McClure, Calvin, a retired physician, recently committed suicide. The act is said to have been induced by wretched condition of Dr. McClure's health. He was one of the wealthiest citizens of Calvin.

Dr. J. A. Nelson has moved from Wayne to Centrahoma.

Dr. E. H. Hurlburt, Chandler, had the misfortune of being the central figure in a disastrous runaway recently. He succeeded in unloading a little girl who was with him in the buggy at the time of the accident, without mishap, but suffered a badly sprained ankle and other bruises of a minor character. The buggy was torn to pieces.

Dr. H. L. Jamieson of Logan county has applied to the district court of that county for a restraining order against the State Board of Medical Examiners to prevent them from revoking his license to practice medicine. He alleges that it is sought to revoke on the ground that his license was obtained by fraud and that he is a graduate of the Independent Medical College.

Dr. P. H. Anderson, Anadarko, is acting government physician to the Caddo Agency pending appointment of a successor to Dr. Walter Rentdorff, who has been transferred to Carlisle, Pa.

Dr. M. Gray has moved from Turnersville, Tex., to his old location at Mountain View.

Dr. W. A. Thompson has been appointed local surgeon of the M. O. & G. Ry. Co. at Achille.

Dr. L. R. Chapman has moved from Blocker to Dilke, Saskatchewan, Canada.

Dr. C. O. Lively has removed from Achille to Colbert.

Dr. R. A. Douglas has moved from Collinsville to Tulsa.

Dr. J. A. L. Williams, an old and respected retired physician, died recently at Supply. Dr. Williams was a veteran of the Civil war, serving in the Third Indiana Cavalry.

Dr. C. H. Fortner, South Coffeyville, was recently called into the country and after proceeding a few miles was assaulted by some person and rendered unconscious. At this time no clue as to the assailant has been found.

The Blackwell Hospital was formally opened to the public on January 6th. The organization of this institution is a tribute to those physicians of Blackwell who, by their energy, have succeeded in the formation of this most essential need to every community.

Dr. S. M. Jenkins, Enid, one of the widely known oculists of the western part of the state, committed suicide by taking strychnine January 31st. During the spring of 1913 Dr. Jenkins had the misfortune to lose his wife, due to hemorrhage following an operation for tonsil removal. This so preyed on his mind that he became despondent and never reconciled, which led to his self-destruction. The sympathies of the profession generally go out to his relatives and intimate friends on his tragic demise.

Dr. C. E. Damrell, of Enid, an ex-county superintendent of health and located in Enid for more than ten years, has removed to Tulsa.

Dr. Hugh Scott, for many years a resident of Guthrie and a prominent member of the Oklahoma National Guard, has moved from Guthrie and located in Dustin. Before taking up his work in Dustin he took a course in Tulane Medical Department.

Dr. O. E. Clements, Hastings, secretary of Jefferson County Medical Society, recently lost all his office fixtures and books and instruments by fire.

Dr. D. H. Patton of Woodward died in Otterbein, Indiana, January 30th. Dr. Patton was a man of striking personality and lived a long, useful and eventful life, being more than ninety years old at the time of his death. He was honored many times in a civic way during his career, having served with distinction in the Civil war and attaining the rank of Colonel in the 38th Indiana. During his residence in Indiana he was twice elected to Congress, serving four years, after which time he removed to Oklahoma. He was receiver of the Woodward land office four years from 1893.

Dr. H. L. Roberts of Frederick has resigned as county superintendent of health of Tillman county.

Dr. Keene of Shawnee had his license to practice revoked by the board of medical examiners at the Oklahoma City meeting. An appeal will be taken to the superior or district court of Oklahoma county, his attorney contending that the right to practice is a property right that may not be taken without jury trial.

Dr. A. G. T. Childers of Mulhall has been reappointed county superintendent of health of Logan county.

Dr. W. G. Lemmon of Nardin has returned to that place after two years spent in New York City doing postgraduate work.

Northwestern Oklahoma county superintendents, representing eleven counties, met in Woodward January 26 and 27 for a conference on public health conditions in their respective counties, the meeting being on call of the State Commissioner of Health. A resolution similar to the Muskogee resolution was adopted to the effect that, after the meeting of the Legislature in January, 1915, all quarantines for smallpox be abolished.

Drs. A. D. Young and R. M. Howard of Oklahoma City are preparing to take a European trip during the spring and summer and take in the clinics of foreign cities. They expect to leave about the first of May.

St. Anthony's Hospital has recently installed an X-ray machine costing the institution \$1600.

Dr. Curtis R. Day, Dean of the Medical Department of the State University, attended the February meetings of the Councils on Medical Legislation, Public Health and Education of the American Medical Association.

Assistant Attorney General Smith C. Matson has rendered opinion to the State Health Department to the effect that in those cases where the law provided for quarantine in the county, expenses incurred by reason there-

of were properly chargeable to the county, and that in the cases of cities of the first class maintaining such quarantine the charge would properly lie against the city.

The University Medical Department has made the following promotions and additions to the faculty: John W. Riley, professor of genito-urinary surgery; George Hunter and A. M. Young, instructors in obstetrics; Dr. F. K. Camp was appointed an instructor of nurses.

Dr. J. F. Campbell, Mangum, defendant in a civil suit for malpractice, was recently mulcted in the sum of \$2,990, the trial taking place at Mangum. It is stated an appeal to the supreme court will be taken. Considerable excitement was caused during the trial by a personal encounter between Dr. J. F. Border and J. S. Ross, an attorney of Oklahoma City, representing the defendant. Dr. Border had been severely cross-examined by Ross and after being excused from the witness chair was the aggressor in the attack. He was fined fifty dollars, the lawyer twenty-five.

CONSTITUENT SOCIETIES.

Blaine County Medical Society elected officers for 1914 in January with the following results: President, J. S. Barnett, Hitchcock; vice president, H. W. Doty, Homestead; secretary-treasurer, D. C. Williams, Watonga.

Coal County Medical Society held its annual meeting with the following results: President, W. E. Brown, Lehigh; vice president, W. B. Wallace, Coalgate; treasurer, S. S. Hipes, Phillips; delegate, F. E. Sadler; alternate, F. Rushing, Coalgate.

Harmon County held its elections with the following results: President, J. E. Jones, Hollis; vice president, T. J. Horsley, Vinson; second vice president, W. T. Ray, Gould; secretary-treasurer, S. W. Hopkins, Hollis; censors, J. S. Scarbrough, W. W. Beach, Hollis, and E. J. Kilpatrick, Vinson; essayest, W. C. Pendergraft, Hollis.

Seventh Councillor District Society held its quarterly meeting in Muskogee January 20th. The out-of-town guest was Dr. G. Wilse Robinson of Kansas City, who presented a paper on "Neuralgias." J. E. Bircaw, Okmulgee, was elected president and J. T. Nichols, Muskogee, secretary.

Tillman County held its annual election January 27th: President, H. L. Roberts, Frederick; vice president, W. A. Fuqua, Loveland; secretary-treasurer, L. A. Mitchell, Frederick; censor, J. D. Osborn, Frederick; delegate, J. H. Hansen, Grandfield; alternate, T. F. Spurgeon, Frederick. F. G. Priestley was endorsed for county superintendent of health to fill the vacancy created by the resignation of Dr. H. L. Roberts.

Pottawatomie County Medical Society held its eighth annual meeting at Shawnee January 21st, with the following program: Address by the president, T. C. Sanders; "Pyosalpinx," E. E. Rice; "Remarks on Syphilis," M. A. Warhurst, Sylvian; "Treatment of Puerperal Sepsis," H. M. Reeder, Asher; "Constipation and Ptosis," J. M. Byrum; "History Taking and Its Analysis," F. L. Carson; "Mental Status of Criminals," G. H. Baxter; "My Conception of a Physician Indeed," H. H. Wilson; "Diseases of the

Prostate Gland," Ed A. Rowland, Maud; "Modern Therapy in Dermatology and Urology," W. C. Bradford.

Oklahoma County Medical Society held its annual banquet at the Skirvin hotel January 10th. The affair was one of the largest ever given by a county society in this state. The following toasts were delivered: "Our New Officers," T. A. Fleshner, Edmond, the retiring president. Addresses were delivered by the following new officers: Millington Smith, John W. Riley and F. B. Sorgatz; "The Society's Past," J. F. Messenbaugh; "Recreation," A. D. Young, Horace Reed, A. A. Will and C. R. Day; "The Ladies," J. M. Alford, J. F. Clark, El Reno, and R. M. Howard; addresses by A. L. Blesh, C. J. Hirschfield, Norman, A. B. Chase and A. M. Young. Standing committees for the year were appointed.

Ottawa County held its first meeting of the year January 14th, with the following program: Clinic, floating kidney, by F. M. Edwards; general discussion of the society's needs by Drs. McNaughton, Edwards, Deans and Points.

Jefferson County elected officers for 1914 as follows: President, T. E. Ashinhurst, Waurika; vice president, W. M. Browning, Hastings; secretary-treasurer, O. E. Clements, Hastings; delegate, L. B. Sutherland, Waurika.

Northeast Oklahoma Medical Society (Sixth District) held its quarterly meeting February 20th, at Nowata, with the following program: President's address, "Relation of Internest to Surgeon," G. H. Butler, Tulsa; "Some Unusual Experiences in a Professional Career," Wm. Narin, Nowata; "Tuberculosis," J. F. Pleas, Collinsville; "Control of Contagious Diseases," W. E. Wright, Tulsa; "Diseases of Children," W. W. Woody, Tulsa; "The Diagnosis of Cirrhosis of the Liver," R. E. Pryor, Bartlesville.

Sequoyah County Medical Society elected: President, J. A. Cheek, Sallisaw; vice president, Wm. Hunter, Vian; secretary, Sam A. McKeel; treasurer, S. B. Jones; censor, V. W. Hudson, Sallisaw.

Craig County Medical Society elected J. W. Craig, president; vice president, A. W. Herron; secretary-treasurer, F. L. Hughson; delegate, R. L. Mitchell, alternate, W. Jackson, all of Vinita; censors, C. S. Neer, J. L. Adams, Vinita; J. H. L. Staples, Bluejacket.

Blaine County elected J. S. Barnett, president, Hitchcock; H. W. Doty, vice president, Homestead; D. C. Williams, secretary, Watonga.

McCurtain County Medical Society elected officers December 30th, with the following selections: President, Jim S. Denison, Garvin; vice president, A. W. Clarkson, Valliant, secretary-treasurer.

McClain County elected: President, G. S. Barger, Wayne; vice president, T. C. McCurdy, Purcell; secretary-treasurer, O. O. Dawson, Wayne; committee on public health and legislation, J. S. Childs, W. C. McCurdy and G. M. Tralle, Purcell; delegate, J. S. Childs, Purcell; alternate, G. S. Barger, Wayne.

Garfield County elected G. A. Boyle, president; C. J. Lukens, vice president; J. M. Cooper, secretary-treasurer (re-elected); S. N. Mayberry, censor three years; H. R. Shannon, two years, all of Enid.

PROCEEDINGS OF CLINICAL SOCIETY OF ST. ANTHONY'S HOSPITAL, OKLAHOMA CITY, FOR JANUARY, 1914.

"Hypopituitarism."

By Dr. Antonio D. Young

This patient was born October 14, 1890, and is therefore 14 years of age. He weighed $17\frac{1}{2}$ pounds at birth. He had incontinence of urine until his fifth year. He was struck between the eyes with a brick at five years of age, which produced a scalp wound only. In my opinion this has nothing to do with his present condition. In October, 1908, he had his first convulsion, and since that time has had numerous attacks of petit and grand mal. He has polyuria but no sugar. His urine has specific gravity of 1001 or 1002. His blood pressure is 90; he weighs 158 pounds. The fat is evenly distributed over his body. He has infantile genitalia. Dr. Ferguson reports his eye findings as that of temporal hemianopsia, more marked in the left eye. There is also nystagmus, more marked on fixation. This condition is evidently caused by a tumor pressing upon the hypophysis cerebri, producing a hypo-secretion, and the trouble evidently started before birth. I have just started feeding him the whole gland. According to Cushing there is some hope of ameliorating these symptoms.

Appendiceal Abscess.

By Geo. A. LaMotte, M. D.

Mr. E., 44 years old. Laundry washer. Parents living and well. Had usual diseases of childhood. Right leg received injury in youth, resulting in lameness most noticeable in ankle. Has lived plainly, worked hard and is addicted to the tobacco habit. Admits Neisserian infection complicated with double orchitis. Received six months' treatment for supposed leutic infection twelve years ago.

Present illness began six years ago, when I was called because of a profuse haematemesis; cramps of the upper abdominal segment, diffuse tenderness and rigidity, but little or no power. With the protracted convalescence most of the abdominal phenomena localized in the ileo-caecal region. During the six months numerous acute exacerbations have occurred, all of which pointed to the appendix. Diagnosis of appendicitis was made independently by three physicians, but at no time was the patient free of abdominal pain and indigestion. Chronic invalidism ensued to the extent of his being unable to earn a livelihood by manual labor, because of asthenia from indigestion and interference with locomotion, probably by virtue of irritation of the psoas muscle. The condition advanced from bad to worse until September, 1913, he became bedfast, presenting classical phenomena of inflammation in the ileo-caecal region with most excruciating pains, only slightly improved by the free use of morphia, exhibited on his own initiative, until simultaneous with the advent of a swelling external to the femoral vessels and under Poupart's ligament he had despaired of being able to endure the torture. This relief

was permanent, but the pus continued to dissect between the muscles of the thigh and forced the patient to seek relief by operative intervention. The laboratory findings disclosed normal urine—secondary anaemia without a leucocytosis pus smears were negative and cultures proved sterile.

I present this case because of the inherent difficulties in diagnosis, its unusual course, and the patient's apparent successful escape from exploratory abdominal operation.

Diagnosis.—Manifestly no reasonable conclusion can be arrived at by the direct or differential method, and we are forced to depend on that treacherous method known as exclusion, since the patient's history is defective in that he feels that he has told all when he complains of abdominal pain and says he has had indigestion for years.

1. His chronic indigestion must be explained.

2. Why the acute exacerbations in a chronic process resulting in invalidism, persistent psoas muscle irritation and terminating in abscess formation?

3. Is the process tubercular, leucic or pyogenic?

(a) The existence of a gastric, or duodenal ulcer, is the most probable explanation of the profuse haematemesis, and if said ulcer was deep enough to reach or perforate the peritoneum perigastritis with adhesions, would explain the colicky pains during active peristalsis, or be the portal of entry for peritoneal infection; but said pains did not seem to have relation to the ingestion of food. The acute attacks always eventually localized about the ileo-caecal region, and no attacks of vomiting or dilated stomach resulted, as would have been likely.

(b) Persistent cholecystitis with cholelithiasis would have likely produced jaundice and portal stagnation, as would a gumma or cirrhosis from syphilis.

(c) The admitted Neisserian infection can be dismissed since prostatic involvement would have long since terminated in rupture, and there is no history of a chronic cystitis, although I have seen chronic prostatitis diagnosed appendicitis.

(d) Tuberculosis of the bones, viz: Potts' ilio-sacral or hip joint involvement you have seen excluded here tonight by the recognized tests, but the asthenia, progressive emaciation, leucopenia and doughy feel of the abdomen cannot be disregarded, especially since this pus was sterile and presented cheesy characteristics. The fever also was of a very irregular type and the skin presents a greasy appearance with tinea versicolor which is rebellious to applications of a saturated solution of sodium hypophosphite. Tubercular peritonitis or involvement of the retro-peritoneal glands would meet our requirements were it not for the final localization of inflammatory phenomena about the appendix with the cessation of each attack and the apparent cure by simple drainage below Poupart's ligament, with a spontaneous kindness of the sinuses to heal.

(e) As the most probable explanation of this motly syndrome, I offer the theory of appendicitis of the retrocaecal variety—reserving an opinion as to whether it is tubercular or not to such a time as may be necessary to observe whether the patient is or only appears to be permanently cured.

Treatment—Exploratory abdominal incision was decided against because of marked asthenia, and if the process were tubercular, as was and is suspected, appendectomy alone would probably have resulted in a troublesome fistula and Mr. Lane's transplantation of the healthy ileum into the descending colon, while putting the probable diseased structures at complete rest and offering the best chance for absolute recovery, I felt had better be deferred to such a time at which the patient would more likely survive the operation.

EXCHANGES—MISCELLANEOUS

RADIUM IN THE TREATMENT OF CANCER.

Had it not been that the speakers were men of the type of Howard A. Kelly, of Baltimore, and Robert Abbe, of New York, at a meeting held last Monday night at the College of Physicians of Philadelphia, the positiveness with which they urged that radium could cure cancer when the neoplasm was so situated as to make it possible to place the radioactive substance into contact with it, would have inspired skepticism. Fortunately, there is no ground for any such spirit; the results obtained are in keeping with the observations of several others, Louis Wickham, of Paris, for instance, who has long preached that properly used, radium could master, not only cutaneous epitheliomata, but also grave cases of cancer situated in other accessible regions. Sacroma in its various forms he found to yield to radiation even more quickly than epithelioma, while lymphadenomata and growths due to mycosis fungoides proved also very susceptible to its effects.

In keeping also with Wickham's advice, however, the speakers advocated surgical removal whenever possible, the limited amount of radium available at the present time rendering a prolonged wait to receive its benefits dangerous in the extreme—owing doubtless to the sudden exacerbation of growth and other complications which would thus be given time to develop. Fortunately, the dearth of radium will in time be remedied; the pitch blende mines and the carnotite fields to which we referred editorially in our issues for October 18 and November 8, 1913, not only afford a vast source of radioactive earths, but through the generosity of Mr. Coleman Dupont, Dr. Howard A. Kelly, and Dr. James Douglass, a prominent engineer of New York, all the radium derived from them will be used for philanthropic purposes.

Radium therapy has, like other valuable methods, received its share of criticism owing to the wide field over which its virtues seem to be

steadily extending. It is becoming increasingly evident, however, that successful results can be expected only when the operator is possessed of sufficient radium to obtain good results, and provided he has the considerable experience required to use it judiciously.—N. Y. Med. Jour.

WISCONSIN'S EUGENIC LAW.

On January first Wisconsin's new eugenic law went into force and its radical character has caused not a little consternation in that state and much comment elsewhere. There are nationalities where the church has put such barriers in the way of matrimony that unlegalized mating has come to be recognized as a condition without shame or loss of caste; such laws as the one enacted by Wisconsin seem to invite the same condition in our country. There can be no argument against prohibiting those who are unfit from marrying, such should be made wards of the state in this regard. Any person who may infect his or her partner in marriage, or who gives promise of a diseased or maimed or deficient progeny should not be allowed to marry. And how is this to be accomplished?

Wisconsin has answered the question by exacting a strict medical examination, which is to include a Wassermann test of the blood. This is well and good but in itself it promises an increase in matings without the sanction of the law. But Wisconsin has gone further. The state has set the fee which physicians shall charge for making these very thorough examinations at the impossible sum of three dollars! The applicant is to be gone over with such thoroughness that no physical or mental affection will be missed, a Wassermann made, and in case of suspicion other tests; and all for three dollars: "It can't be done." The natural conclusion is that the state purposes establishing its own laboratories and the making of marriage a strictly state matter, we can see no other way out in the extremity. And unless a very strong hand appears to control the situation we believe that the end accomplished, at least for the time, will be decidedly un-eugenic and unmoral. Along with the public generally our profession is watching the Wisconsin situation with tremendous interest and not a little apprehension.—Medical Fortnightly.

OUR BATTLE CREEK ADVERTISEMENT.

Readers of this Journal will notice that the advertisement which has been running in its pages and has occupied a full page in describing the attractions of the Battle Creek Sanitarium is conspicuous by its absence.

At various times since our contract was made to carry the Battle Creek advertisement in the Journal there have been protests from physicians residing in different sections of the South because they asserted that the Battle Creek Sanitarium was not ethical in its methods of advertising.

At the time our contract for one year was made, the editors of the Southern Medical Journal had not heard any specific charges of the Battle Creek Sanitarium advertising directly to the public; but since then

our attention has been called to its advertisement in various lay journals and to the fact that it is sending out literature directly to prospective patients. If an individual physician were to send reprints and other literature regarding his work to laymen, he would be sure to have charges preferred against him for unethical conduct. We have been convinced that the Battle Creek methods are unethical and thoroughly commercialized, and we cannot allow the Southern Medical Journal to be used in the exploitation of such an institution.

The Southern Medical Journal declines to publish the advertisements of many proprietary medicines because they are advertised directly to the public and we believe that the standards for medical journal advertising should be the same or even higher for sanatoriums and infirmaries as for pharmaceutical houses.

On account of the Battle Creek policy of advertising in lay papers and sending circulars directly to the laity, in such a manner as to entirely ignore the opinions of any physicians who might at the time be treating such patients, the editors have concluded that it is contrary to the policy of this Journal to accept advertising from an institution that uses such means to maintain its patronage. Therefore, when their contract with us expired we notified them that we could not consider a continuation or renewal of the contract, telling them as politely as possible our reasons for such a conclusion. In taking this step we shall no doubt be considered over-particular, since, so far as we know, no other journal has declined this good paying advertisement.

The Southern Medical Journal is conducted in the interest of physicians and their patients, and it does not consider that the interests of either are conserved by supporting the efforts of an institution that reaches out for patients through the lay press, and by means of circular letters and laudatory literature directly to possible patients. The Journal needs money, but not badly enough to accept it from any source which it concludes to be inimical to the welfare of the medical profession. Physicians may rest assured that the sanitariums whose advertisements appear in this Journal are in every respect worthy of their confidence. Whenever it learns that such is not the case, their advertisements will be declined, no matter what financial loss may follow.—Southern Medical Journal, January, 1914.

NEW AND NON-OFFICIAL REMEDIES.

Since publication of New and Non-official Remedies, 1913, and in addition to those previously reported, the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for incision with "New and Non-official Remedies."

Radium and Radium Salts.—Radium is used in medicine in the form of its chloride, bromide, sulphate and carbonate. The therapeutic value of radium salts depends on the emanations which are given off from the radium. Radium emanation consists of alpha-rays, beta-rays and gamma-

rays, the latter being similar to X-rays and therapeutically the most useful. The quantity and concentration of radium emanations are expressed in terms of "curie" and Mache units. A "curie" is the amount of emanation in equilibrium with 1 Gm. of radium and a microcurie is one-millionth of a "curie." A microcurie is equivalent to about 2,500 Mache units. It has been claimed that radium emanation is of value in all forms of non-suppurative, acute, subacute and chronic arthritis, in chronic muscle and joint rheumatism, in arthritis deformans, acute and chronic gout, neuralgia, sciatica, lumbago and in tabes dorsalis for the relief of lancinating pains. Its chief value is in the relief of pain. Surgically marked results are obtained in the removal of epitheliomata, birthmarks and scars. Radium may be administered in baths, by subcutaneous injection in the neighborhood of an involved joint (0.25 to 0.5 microcurie in 1 or 2 Cc. distilled water), by local application as compresses (5-10 microcuries), by mouth as a drink cure (in increasing doses of from 1-10 to 10 microcuries three or more times a day), by inhalation, the patient for two hours daily remaining in the emanatorium, which contains 0.0025 to 0.25 (average 0.1) microcurie per liter of air.

Radium Chloride.—Radium chloride is supplied in the form of a mixture of radium chloride and barium chloride, and is sold on the basis of its radium content. Radium Chloride-Standard Chemical Co., Radium Chemical, Pittsburg, Pa.

Radium Sulphate.—Radium sulphate is supplied in the form of a mixture of radium chloride and barium chloride, and is sold on the basis of its radium content. Radium Sulphate-Standard Chemical Co., Radium Chemical Co., Pittsburg, Pa. (Jour. A. M. A., Jan. 3, 1914, p. 41 in part.)

PROPAGANDA FOR REFORM.

The Action of Hexamethylenamin.—It has been shown by Hanzlik and Collins that hexamethylenamin can act only in body fluids which are acid in reaction, namely the gastric juice and the urine. The only part of the body in which hexamethylenamin may be expected to exert an antiseptic action is in the urinary tract, and then only if the urine is acid. If the urine is not acid already sodium acid phosphate should be administered to render it so. The administration of sodium or potassium acetate or citrate, in sufficient quantity, will render an acid urine alkaline and inhibit the action of hexamethylenamin (Jour. A. M. A., Jan. 3, 1914, p. 43).

Odor-o-no.—Odor-o-no, The Odorono Company, Cincinnati, Ohio, is sold as the "anti dress-shield toilet water." It is claimed to eliminate excessive perspiration and to be absolutely harmless. Confirming the analysis made by the Indiana state chemists some time ago, the A. M. A. Chemical Laboratory reports that now, as when examined before, Odor-o-no is a strong solution of aluminum chloride. When this solution is applied to the skin, it will be decomposed by the perspiration into free hydrochloric acid which will attack and irritate the skin, and aluminum hydroxids which tends to clog up the pores (Jour. A. M. A., Jan. 3, 1914, p. 54).

Hydrocyanate of Iron, Tilden.—While from the name one would judge Hydrocyanate of Iron, Tilden, to be a cyanide of iron, analysis in the A. M. A. Chemical Laboratory has demonstrated the preparation to consist essentially of equal parts of talc and Prussian blue, with traces of organic matter having the properties of alkaloids. Prussian blue is a remedy that has been used for epilepsy and found wanting (Jour. A. M. A., Jan. 3, 1914, p. 58).

The Quality of Sodium Acid Phosphate.—As it appears probable that the use of sodium acid phosphate will increase and since previous experience has emphasized the unreliability of little used drugs, the A. M. A. Chemical Laboratory deemed it important to examine the market supply. While the official sodium phosphate may be obtained of exceptional purity, the examination showed that the market supply of sodium acid phosphate was decidedly variable and much less pure, although not seriously impure. Based on the examination the laboratory proposed standards which were thought fair, both to those who make it and those who use it in their practice. The examination showed the product of the Mallinckrodt Chemical Works and of the Powers-Weightman-Rosengarten Company to comply with the proposed standards. Acting on the report of the laboratory, the Council on Pharmacy and Chemistry decided to describe sodium acid phosphate in New an Nonofficial Remedies and having adopted the proposed standards of purity, accepted the two brands named for inclusion with N. N. R. (Jour. A. M. A., Jan. 10, 1914, p. 142).

Hypo-Quinidol.—While no definite statements appear to be contained in the advertising matter sent out by R. W. Gardner, certain statements suggest that Hydro-Quinidol might be some sort of a quinin hypophosphite preparation. But if this is true, its action would be the same as other salts of quinin and the extravagant claims made could not be substantiated. Hypo-Quinidol is a preparation the composition of which is secret, and for which highly improbable claims are made (Jour. A. M. A., Jan. 10, 1914, p. 148).

The Richie Morphin Cure.—The Richie Company was discussed in Collier's Great American Fraud series as one of the concerns which under the guise of mail order "cures" for the morphin habit fosters the slavery of the drug habit by substituting for the morphin addiction an addiction to their villainous mixtures of opiates. More recently shipments of the "Richie cure" were seized by the Federal authorities and found on analysis to contain from 7.21 grains to 15.95 grains of morphin sulphate to the fluid ounce (Jour. A. M. A., Jan. 10, 1914, p. 144).

Radium in Carcinoma.—Sparmann reports on the after-history of fifty-three cases of carcinoma treated with radium. Of these eleven have died since the treatment, in six the tumor has disappeared, in five the condition seems improved, in seven the condition is aggravated and in the others the treatment was not continued because the condition of the patients had become worse. While these results show that radium is a remedy of use in the treatment of cancer it is not a sovereign remedy as some enthusiastic reports would have us believe (Jour. A. M. A., Jan. 17, 1914, p. 212).

Expurgo Anti-Diabetes.—The claim made for Expurgo Anti-Diabetes (sold in Canada as Sanol Anti-Diabetes) that it is "The only positive cure for Diabetes" and others of this character should be sufficient to condemn it. Nevertheless medical journals advertise it and physicians have been found to give testimonials for it. Examination in the A. M. A. Chemical Laboratory showed that Expurgo-Anti-Diabetes is essentially a watery solution of plant extractives with small quantities of sodium salicylate and salt. The exploiters claim that their stuff contains the fruit and bark of jambul, rosemary, star anise and fluid extract of calamus, cinchona, cola, condurango and gentian. One of the claimed ingredients, jambul, was in vogue as a remedy for diabetes some years ago. It was tried and found wanting and relegated to the therapeutic scrap heap (Jour. A. M. A., Jan 24, 1914, p. 312).

Case's Rheumatic Specific.—This is a "patent medicine" sold under the inferential claim that it does not contain salicylate. A package bearing the statement that this medicine "Cures where all else fails rheumatism, muscular, sciatica, lumbago, gout, neuralgia, neuritis" contained one box of "Rheumatic and Gout Pills" and one of "Bilious and Liver Tablets." Examination in the A. M. A. Chemical Laboratory showed the first to contain sodium salicylate with some magnesium oxid and licorice root while the second was found to contain aloin or some preparation of aloes as the purgative constituent (Jour. A. M. A., Jan. 31, 1914, p. 394).

THE OKLAHOMA LEGAL AID AND PHYSICIANS DEFENSE BUREAU.

316 North "N" Street, Muskogee, Oklahoma.

To the Members of the Medical Profession:

The Oklahoma Legal Aid and Physicians Aid Bureau has been formed for the purpose of placing at the disposal of every reputable physician of Oklahoma the means of protecting himself when assailed, as is often the case by mal practice suits arising out of causes from which the doctor is often the innocent victim, and while such suits often are decided in the doctor's favor, yet the expenses of such defense are immense.

To remedy this condition, The Oklahoma Legal Aid and Physicians Defense Bureau will furnish all the expert counsel and bear all expenses of the cost of defending its members for the small cost of \$10 membership fee per annum, so that when a doctor is served with a notice of a suit, all he will have to do is to send to this Bureau a copy of the petition or complaint filed against him, and the Bureau will at once, at its own cost, take all steps to prepare for and make the defense.

Membership in the Oklahoma Legal Aid and Physicians Defense Bureau can be had by any physician furnishing this Bureau evidence of being a lawfully licensed practitioner of medicine in this state and a certificate of good standing in the local medical society to which the doctor belongs, and the \$10 annual membership fee. Applications should be sent either to Dr. Claude Thompson, president, Barnes Building, Muskogee, or to Dr. J. H. Stolper, General Counsel, 316 North "N" Street, Muskogee, Oklahoma. This Bureau is organized and will be conducted by physicians for the best interest of the medical profession, and it is hoped to have the best medico-legal talents in this state connected with it, as the success of this Bureau means the best interest of the medical profession, the support and co-operation of every reputable doctor in Oklahoma is requested.

J. H. STOLPER, M. D., General Counsel.

NEW BOOKS

PRINCIPLES OF SURGERY.

Principles of Surgery. By W. A. Bryan, A. M., M. D., Professor of Surgery and Clinical Surgery at Vanderbilt University, Nashville, Tennessee. Octavo of 677 pages with 224 original illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$4.00 net.

This work is one of the most engaging recently reviewed. The reader's attention is attracted at once by the writer's fluent style and logical presentation of surgical principles. The work is in no sense a compilation of the conclusions of other writers, but in every page bears the distinctive style of originality of thought and expression. That it has been brought up to date and carefully edited is evidenced by the inclusion of a great deal of matter not heretofore included in surgical works. This may be noted in the author's handling of the subject of tetanus, rabies and similar infectious septic problems. The subject of tumors, benign and malignant; the tumors of special characteristics such as chondroma, osteoma, myxoma, fibroma, angioma, the lymphatic group; sarcoma, and the cancerous group, epithelioma and carcinoma is discussed in a most attractive manner and they are given the relatively large space their importance warrants. The writer believes that the clearness with which surgical problems are discussed in this work entitles it to very great consideration and that any physician desiring a clear picture of surgical principles and conditions, basic and detailed, will here find a good friend indeed.

DIAGNOSTIC METHODS.

A guide for History Taking, Making of Routine Physical Examinations, and the Usual Laboratory Tests Necessary for Students in Clinical Pathology, Hospital Internes and Practicing Physicians. By Herbert Thomas Brooks, A. B., M. D., Professor of Pathology, University of Tennessee, College of Medicine, Memphis, Tennessee. Second Edition, Revised and Rewritten, 82 pages, price \$1.00, C. V. Mosby Company, St. Louis, 1914.

This is a neat compact little volume containing concise references and facts of use to the hurried professional man who desires to lay his hands quickly on methods of diagnosis. Everything in it is easy of access and arranged with a view to convenience.

PRACTICAL SANITATION.

A Handbook for Health Officers and Practitioners of Medicine, by Fletcher Gardner, M. D., Captain Medical Corps, Indiana National Guard; First Lieutenant Medical Reserve Corps, United States Army; Health Commissioner of Monroe County, Indiana, and James Persons Simonds, B. A., M. D., Professor of Preventive Medicine and Bacteriology, Medical Department, University of Texas; lately Superintendent, Indiana State Laboratory of Hygiene. Illustrated, Cloth, 403 pages, price \$4.

The publishers claim that this is the only book published on this subject, so far as they can learn. The importance of the subject of sanitation and hygiene and the constantly increasing demands of our modern system of doing things requires that a health officer be familiar with a wide range of infectious diseases, their aspects and proper steps for control and eradication. This book contains much original matter from the author and rather voluminously quotes the good suggestions from other writings peculiar to the health officer's field. It is dedicated to Dr. Harvey W. Wiley and its introductory is written by Dr. J. N. Hurty, Commissioner of Health of Indiana. It considers personal hygiene, the aspects of infectious and contagious diseases, their control, the establishment of quarantine camps, isolation, the management of epidemics and disinfection. The different infections are considered by groups; for instance, the "typhoid group," "the exanthemata," the "diphtheria group" and under this heading is classed groups of all character except simple croup and the accompanying systemic infections. Chapters are written on parasites, general sanitation, local records and statistical methods, birth and death registration and what should be read by every physician, the International List of Causes of Death; consideration of the handling and general hygienic management of penal and similar institutions. The surface closet and its worthy successor, the modern sanitary privy, is considered from every angle. The book is well worth while. It is readable from cover to cover.

PRACTICAL MEDICINE SERIES, VOLUME NINE, SECTION ONE.

Edited by William L. Baum, M. D., Professor of Skin and Venereal Diseases, Chicago Post-Graduate Medical School. Section two, by Harold N. Moyer, M. D., Chicago. Section one of this book is a review of recent current medical literature on genito-urinary subjects, with especial reference to the treatment of gonorrhoea and syphilis, the abstracting of the latter subject being good. There is also a general review of genito-urinary surgery and medicine. Section one contains observations on medical history, medical economics, sociology and eugenics. Illustrated, cloth 228 pages, price \$1.35. The Year Book Publishers, 327 S. LaSalle St., Chicago.

Volume Ten.—Nervous and Mental Diseases, edited by Hugh T. Patrick, M. D., Professor of Neurology in the Chicago Polyclinic, Clinical Professor of Nervous Diseases in the Northwestern University Medical School; Ex-President Chicago Neurological Society, and Peter Bassoe, M. D., Assistant Professor of Nervous and Mental Diseases, Rush Medical College, Series 1913, illustrated, 244 pages, cloth, price \$1.35. The Year Book Publishers, 327 S. LaSalle St., Chicago.

A review of late literature on mental and nervous diseases and infectious diseases affecting the nervous system including epidemic meningitis, beri-beri, pellagra and an illustrated review on "Trypanosomiasis in Brazil" or "Chagas Disease."

UNITED FRUIT CO., MEDICAL DEPARTMENT, ANNUAL REPORT, 1912-1913.

United Fruit Co., Medical Department, Annual Report, 1912-1913. Issued by the United States Fruit Co., as indicative of their work in caring for their employes in the tropics. Prepared by Dr. Robt. E. Swigart, general superintendent, New Orleans, La.

These two reports cover the years 1912 and 1913, and are handsomely illustrated little volumes, interesting to the reader who at best has only vague ideas of medical conditions in our southern countries. The general statement of the 1913 report shows that nearly 100,000 people were treated, that the company had more than 34,000 employees entitled to treatment, and 28,500 people other than employees received treatment. The company maintains seven hospitals costing from \$4,700 to \$156,000, to total investment being \$452,000. The total cost of operations of the hospitals for the year was \$354,850.

One is impressed with the fact that the work done is very efficient when it is noted that of two hundred and eighty-eight surgical operations, including amputations, operations on the genito-urinary tract, gun-shot wounds, stab wounds and abdominal sections, there were only three deaths.

Reading between the lines one is further impressed with the fact that corporations already recognize what governments soon must recognize: that the protection of the health of the people is a paramount necessity.

OKLAHOMA HOSPITAL FOR THE INSANE.

Oklahoma Hospital for the Insane, Norman, Oklahoma. Annual Report for the Year Ending Sept 13, 1913.

This report indicates that the state of Oklahoma is not lagging in any respect with reference to the care of her insane wards.

The report shows that there were remaining 862 patients in October, 1912, and that there were 691 admissions during the year, of which 634 were whites, 8 Indians, 49 colored.

It is not necessary to go into details here, other than to say that the staff is to be commended for the good work done during the year.

COUNCILLOR DISTRICTS AND THEIR RESPECTIVE COUNTIES.

First District—A. L. Blesh, Councillor, Oklahoma City; Canadian, Cleveland, Oklahoma, Grady, Lincoln, Pottawatomie and Seminole.

Second District—R. V. Smith, Councillor, Guthrie; Grant, Kay, Osage, Noble, Pawnee, Kingfisher, Logan and Payne.

Third District—C. R. Hume, Councillor, Anadarko; Roger Mills, Custer, Dewey, Blaine, Beckham, Washita and Caddo.

Fourth District—C. M. Maupin, Councillor, Waurika; Greer, Kiowa, Jackson, Comanche, Tillman, Stephens, Jefferson and Harmon.

Fifth District—Walton H. McKenzie, Councillor, Enid; Cimmaron, Texas, Beaver, Harper, Woodward, Alfalfa, Ellis, Woods, Major and Garfield.

Sixth District—L. T. Strother, Councillor, Nowata; District Medical Society President, G. H. Butler, Tulsa; Secretary, J. V. Athey, Bartlesville; Washington, Nowata, Rogers, Mayes, Delaware, Tulsa and Craig.

Seventh District—P. P. Nesbitt, Councillor, Muskogee; District Medical Society President, J. E. Bircaw, Okmulgee; Secretary, J. T. Nichols, Muskogee; Muskogee, Creek, Wagoner, Cherokee, Adair, Okmulgee, Okfuskee and McIntosh.

Eighth District—I. W. Robertson, Councillor, Dustin; Sequoyah, LeFlore, Haskell, Hughes, Pittsburg and Latimer.

Ninth District—H. P. Wilson, Councillor, Wynnewood; McClain, Garvin, Carter, Love, Murray, Pontotoc, Johnston and Marshall.

Tenth District—J. L. Austin, Councillor, Durant; Coal, Atoka, Bryan, Pushmataha, Choctaw and McCurtain.

THE GUTHRIE MEETING, MAY 12-14. COMMITTEES.

Committee on Arrangements

R. V. Smith, Chairman; C. S. Petty, C. B. Hill and J. W. Duke.

Committee on Entertainment

E. O. Barker, Chairman; W. W. Rucks, J. L. Melvin and W. E. Stewart.

Committee on Reception

J. L. Houseworth, Chairman; L. A. Hahn, L. A. Newton, C. F. Cotteral, C. B. Barker and F. Y. Cronk.

OFFICERS DIRECTORY, OKLAHOMA STATE MEDICAL ASSOCIATION

Annual Meeting, Guthrie, May 12-13-14.

President—J. M. Byrum, Shawnee.

First Vice President—J. T. Slover, Sulphur.

Second Vice President—D. Long, Duncan.

Third Vice President—J. H. Barnes, Enid.

Secretary—Claude A. Thompson, Muskogee.

Delegates to A. M. A.—

J. Hutchings White, Muskogee, 1914.

W. E. Wright, Tulsa, 1914-15.

CHAIRMEN OF SCIENTIFIC SECTIONS.

Surgery—Horace Reed, Chairman, Oklahoma City.

Pediatrics—E. Forrest Hayden, Tulsa.

Eye, Ear, Nose and Throat—W. A. Cook, Tulsa.

General Medicine, Mental and Nervous Diseases—Dr. A. W. White, Oklahoma City.

Gynecology and Obstetrics—D. L. Garrett, Altus.

LEGISLATIVE COMMITTEE.

J. Q. Newell, Oklahoma City, 1913-14.

C. R. Day, Security Building, Oklahoma City, 1913.

John W. Duke, Guthrie, Oklahoma, 1913-14-15.

NECROLOGY COMMITTEE.

J. B. Smith, Durant, for three years, 1912-13-14.

A. D. Young, Oklahoma City, for two years, 1912-13.

Geo. A. Boyle, Enid, for one year, 1912.

STATE BOARD OF MEDICAL EXAMINERS.

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Frank Englehart, Oklahoma City; LeRoy Long, McAlester; Phillip F. Head, Alva; W. LeRoy Bonnell, Chickasha; James O. Wharton, Duncan; Melvin Gray, Chickasha.

Next meeting Oklahoma City, April 14, 15, 16, 1914.

Address all communications to the Secretary, Dr. J. W. Duke.

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THE JOURNAL

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No. 11

DR. CLAUDE A. THOMPSON, EDITOR-IN-CHIEF.

*RELATION OF INTERNIST TO SURGEON.

G. H. Butler, M. D., Tulsa, Okla.

The fact that there has been a gradual drifting apart of the internist and surgeon during the past two or three decades is apparent to those of us who have been observant during that time. The meteoric career of the surgeon has rather eclipsed the light that shone from the internist, whom, it appears, has rather conceded the supremacy.

Coincident with the coming of the germ theory of disease, came the antiseptic, and a little later the aseptic practice in surgery, which rendered possible much of the brilliant work that before had been studiously avoided. With the wonderful achievements of the surgeon, nothing seemed impossible. The exploration of the cavities of the body disproved a lot of the theories held and brought to light new and strange phases of disease before little understood. Our good old "inflammation of the bowels" was proven to be, in a great many instances, appendicitis. It was discovered that a peritonitis, from whatever cause, would produce "locked bowels" as effectively as intussusception or volvulus. We had fewer cases of abscess of the liver and a lot more cases of infection of the gall bladder.

Our cases of "cancer of the stomach" that persisted for years were found to be recurring gastric or duodenal ulcers, and all these conditions were to be cured by the surgeon. We proposed, in our enthusiasm, to cure Bright's disease by decapsulization of the kidneys; cancer by the X-ray, and all the aches and pains of our women were to be cured by the removal of her ovaries and the shortening of the ligaments of her uterus.

The safety with which major surgical operations might be done by indifferent surgeons, working under adverse surroundings, led us into what

*President's Address, Sixth Councillor District Medical Society, Nowata, Okla., Feb. 20, 1914.

might be called a campaign of surgery, that was as reckless as it was uncalled for and failed of the results promised.

By and by it was discovered that too many of our cases successfully operated were still far from a condition of good health and were left with no alternative but to consult the internist again. But in consulting the internist, a man different from the old family physician was encountered.

The era of the germ theory of disease brought a great many investigators who proclaimed that our theories concerning many diseased conditions were erroneous, that this or that disease was caused by a specific micro-organism (and proved it), and proceeded to look for other germ-causing diseases. The elaborate laboratory methods of diagnosis lent their aid to us so well that we plunged ahead in our zeal to find the specific cause of disease, until we well nigh lost sight of every feature of disease.

Before we became laboratory men, physicians relied largely upon physical examination, together with case history, in making diagnoses. We understood physical diagnosis, we knew how to take the history of the case, and we knew how to interpret these various findings. But these things we abandoned, largely, and depended upon our laboratories.

Given a case, we secured specimens of blood, sputum, urine, feces, made slides from mucous discharges, snipped off a piece of any neoplasm, sent it all to the laboratory, and after a few days read our diagnosis to the patient. The errors made sometimes would have been humorous had they not been tragic. This condition redounded to the credit of the internist no more than reckless operations did to the surgeon and resulted in what? We called a halt to review our cases to try to find the fault. We rediscovered the sympathetic nervous system; we were reminded that the ductless glands had an internal secretion that had to do with the stability of the human economy; that the process of digestion could be interfered with without the presence of a gastric ulcer; that there were conditions in our business men that only rest, systematic exercise and a change of environment could benefit; that to wait until the bacillus tuberculosis could be identified meant the robbing of our patient of the most valuable time for a possible cure and that, after all, or after Salvarsan, the old-fashioned mercury was indispensable in syphilis.

The next decade will show the triumph of the internist. With a better understanding of the functions and pathology of the ductless glands, with diagnostic measures that render certain the morbid conditions that obtain in the digestive tract and the kidneys, with the further development of vaccine therapy and the serums, the internist will be in a position to show results as brilliant and positive as the surgeon.

Already one hears a lot about "border line cases" in the best clinics of this country and the surgeon is more and more calling the internist in consultation to check his findings, to make more certain that the diag-

nosis is correct, to advise as to the necessity for surgery and the end results to be had, from whatever plan of procedure.

Recently I saw one of the most famous surgeons in the country call on an internist for a diagnosis in an obscure case. The diagnosis was made by a physical examination, the history of the case, a stomach lavage, with examination of contents, and then an analysis of what the symptoms meant and their cause. The announcement of a cyst of the pancreas was followed by a laparotomy, which confirmed the diagnosis.

This is as it should be. A surgeon has no more right to make his diagnosis with a knife than has an internist the right to deny his patient prompt surgical aid when it is needed, and not until there is a closer affiliation, more consistent team work, will our professional work reach the high standard that medical learning now demands.

One other feature of the rather strained relation between surgeon and internist is this: The internist sometimes hesitates to call a surgeon for the reason that he considers it an acknowledgment of the superior knowledge of the surgeon, which is not true, and the surgeon fails too often to send his patient back to the internist for observation and further advice following operative procedures. A great many cases which leave the hospitals following surgical interference need rest, tonics, change of environment or other measures properly in the domain of internal medicine to complete the restoration to health, and this is especially true in America, where the surgeons seem to vie with each other in their efforts to send their patients out in the shortest possible time.

I want to repeat that the internist is coming into his own, but he must be proficient in the use of the microscope; he must know the value of careful examinations of the secretions and the excretions; he must avail himself of the valuable aid given by radiography; he must remember auscultation and percussion, know the clinical history of disease, be willing to devote sufficient time to the patient to ascertain the truth and submit his findings, if it be a surgical or border-line case, to his surgeon with advice as to the treatment of the case.

One thing the internist must forget, and that is the old fallacy that he can not afford to devote time to his cases, because the patient will only expect to pay a nominal fee. That is not true. Sick people are running all over this country, spending large sums of money to find out what is the matter with them, and they are more than willing to pay their own physicians well for service, if they can get it. When this good day comes—as come it must—the practice of medicine will be placed on a much more satisfactory basis than it is now, and it will certainly redound to the credit of the profession and the benefit of the patients.

Until there is a closer relation between the internist and surgeon, until our cases have been more thoroughly gone into, until we take the time and trouble to make a more accurate diagnosis, thereby form-

ing a rational basis for treatment, we will find our patients drifting from the regular profession to the different cults and "pathies" in an effort to find relief, for, after all, relief for real or imaginary ills is the only reason we are ever consulted.

***DUODENAL ULCER.**

Dr. G. A. Wall, Bartlesville, Okla.

Duodenal ulcer, the earliest history of which occurs in the London Medico-Chirurgical Trans. of 1817 in a case there reported by Mr. Travers, must be considered in connection with gastric ulcer, with which it may be confused—in fact, often is. We are indebted to Moynihan, Robson and the Mayos, who have shown us a distinct clinical picture. The exact cause of duodenal ulcer has not as yet been determined, but the fact that it is situated opposite the pylorus has led to the suggestion that the most active factor is the forcible ejection of the acid chyme from the stomach against this site, and the ulcer which forms occasionally on the opposite wall has been called the "contact ulcer."

It has been suggested that its frequency here may be attributed to some anatomic peculiarity of the blood supply, and in corroboration of this Wilkie has discovered a peculiar distribution of the blood vessels by which a single vessel supplies the first 1½ inches of the duodenum with apparently inadequate nutrition. Moynihan believes that it is due to some toxic or infectious process, for here is what he says: "There can, I think, no longer be any question that both duodenal and gastric ulcers are secondary to some toxic or infective process, the various stages of the disease being infection, congestion of the gastric mucosa with erosion, superficial ulceration, and finally, chronic ulcer. In many cases the primary septic focus seems to be in the appendix."

Thrombosis and embolism have been held responsible for a number of cases by Virchow. Embolism of the gastric vessels is extremely rare, while thrombosis is not an infrequent result of obstinate vomiting. The stasis of circulation thus resulting affords favorable foci for the solvent action of the gastric juice, and certainly no theory explains so satisfactorily the crater shape of so many ulcers.

In a paper which has become classical, Curling (Med.-Chir., Trans. 1841-42) called attention to what he supposed was the connection between cases of burn or scald, and acute ulceration of the duodenum. The term "Curling's ulcer" has now obtained universal currency, and no account of duodenal ulcer has been written of late years without conspicuous mention being made of the association of this lesion with burns or scalds. It seems, though, that the first man to call attention to the occurrence of duodenal ulcer in case of burns was James Long of Liverpool, in 1840. In this year he relates two very interesting cases. Moynihan believes the lesion an infrequent one, and in twenty years not a single case was

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observed by him in his hospital post-mortem room, and in all his operative cases no case has been met with in which a burn or scald could in any degree be held responsible for the appearance of the ulcer. He concludes that the cases of chronic ulcer of the duodenum which have a clinical significance, do not seem, therefore, to be in any way dependent upon these injuries.

The great preponderance of cases of duodenal ulcer in the male (77% as against 23% in the female), has caused Mayo to suggest that in the male, the first or ascending portion of the duodenum seems to ascend a little higher than in the female; consequently, in the latter, the alkaline biliary and pancreatic secretions may rise higher, and thus more readily neutralize the acid chyme. It is remarkable with what constancy the same part of the duodenum is attacked by the ulcer. In at least 95% of the cases, the ulcer lies in the first portion of the duodenum within $1\frac{1}{2}$ inches of the pylorus. Mistakes are made in location from the fact that the ulcer has a tendency to "tuck back" and become adherent to the liver or posterior abdominal wall. The ulcer under these conditions may be said to be in the second part of the bowel, but if the position of the pyloric vein is noted it will be seen at once that the ulcer is within one-half to three-fourths of an inch of the pylorus. This vein is a most important landmark, is constant, runs a little to the gastric side of the pylorus; hence its recognition shows at a glance where the stomach ends and where the pylorus begins.

The most constant position for an ulcer is on the anterior wall of the duodenum, midway between the upper and lower borders, and almost exactly one-half inch below the pylorus. The ordinary type of ulcer that comes to surgical intervention, is the chronic indurated one, which has persisted for years and is surrounded by a zone of scar tissue. The acute ulcer seldom comes to operation for the reason that it is rarely recognized unless hemorrhage or melena take place, and these are rare in acute ulcers. There can seem to be no good reason why surgical interference should not be invoked if the recognition is made, and with fair chance of success.

The occurrence of malignancy in a duodenal ulcer is rare, in contradistinction to the fact that gastric ulcer frequently becomes malignant. Moynihan has only seen malignant change in duodenal ulcer twice in his experience. It is probably true that two out of three cases of cancer of the stomach have their origin in an open ulcer or in the scar of a completely healed one.

The symptoms, according to Moynihan, appear in no disease in such a definite and well ordered sequence as they do in duodenal ulcer. They are definite, not easily mistaken, and they appear in an order and with a precision which are indeed remarkable. As a rule the patient is in middle life—from twenty-five to forty-five years of age—and he may date his complaint from an early period of life. They nearly always say that they have had symptoms "as long as they could remember." The first

thing the patient noted was a sense of weight, oppression, or distension of the epigastrium after meals. At first little attention is paid to it, but shortly notice is taken of the fact that pain comes on, usually two hours after meals, more or less. Immediately after a meal there is ease; if pain or discomfort were present before, the meal relieves them entirely. Because of this fact Moynihan calls it "hunger pain." The regular appearance of pain after definite intervals from taking food is remarkable, and is consistent. The pain is often preceded by a sensation of weight, or fullness, and distention, in the epigastrium; it is described as gnawing, boring or burning. Sometimes relieved by belching, hence constant attempts are made to bring about eructations of gas. Sometimes there may be a slight regurgitation of food, and when there is the taste is bitter and acrid. Occasionally, the pain may strike to the back, and pass around to the right side. Pressure on the epigastrium often gives relief, and patients often hug a pillow in the night to obtain relief in this way.

Occasionally the pain may take on the characteristics of "cramp colic," due, in all probability, to a contraction of the pylorus. Throughout this whole period, during which the pain is felt, the appetite remains good; in fact, patients say that they relish their food. Fluid food causes the pain to come on earlier and to last longer than when ordinary meals are taken; in fact, patients feel worse when dieted in this way, but persistence in liquid diet, during the early stages, will redound in benefit. Vomiting is an infrequent complication and usually comes on late, after the ulcer is healed, and is due to stenosis of the pyloric orifice. These are the characteristic symptoms described by the patient, and Moynihan says "upon them alone a confident diagnosis of duodenal ulcer may be made."

Certainly the most characteristic feature, enabling a diagnosis of chronic duodenal ulcer to be made, is the periodicity of the symptoms and their recurrence from time to time in "attacks," and their complete abeyance in the intervals. On close questioning, a cause can almost always be found for the onset of the symptoms. The most common of all these is getting cold; hence we find the great majority of patients will say that the attacks are prone to occur during the winter months; in the summer they are almost free from symptoms. The attacks often follow some debilitating illness, and may last two or three weeks, or even months, to be relieved by a few days' rest in the country or at the seaside. So complete may the recovery be that the very suggestion that the attack was due to an organic lesion is scorned with a smile of disbelief. The doctor tells the patient that he had an attack of "excessive acid secretion," or as we call it technically, "hyperchlorhydria" or "acid dyspepsia," due to nervousness.

Medical writers on internal medicine evidently do not believe that duodenal ulcer and "acid dyspepsia" are one and the same condition. Listen, now, to what some of them say on this subject. Edward says: "Hyperchlorhydria is not solely a neurosis, though conveniently classified as such. It is accompanied by no known gastric lesion." But here are

the symptoms he gives: "First, pain the chief symptom, varying in intensity from a sense of pressure to severe gastralgia; it develops at the height of gastric digestion, i. e., one to two hours after eating, and is due to the excess of free hydrochloric acid. The more food, especially meat, ingested, the later the pain comes on. It is relieved by the taking of more food or the taking of soda bicarbonate."

Tyson seems uncertain whether hyperchlorhydria is a symptom of organic lesion or is only functional. He says: "An excess of H. C. L. in the gastric juice is a symptom of different morbid conditions, notably ulcer and dyspepsia. In a certain number of cases it may be studied as an independent neurosis." He then goes on and says: "Eliminating the hyperchlorhydria included under nervous dyspepsia and gastric ulcer, there remain two varieties: (1) Simple paroxysmal hyperchlorhydria lasting for an hour after meals, or several days; (2) Continuous chronic hyperchlorhydria taking place spontaneously, or excited by food stimulus. Both are most frequent in neurasthenics and emotional persons." But listen again to the symptoms he gives: "In paroxysmal hyperchlorhydria there are pain and epigastric discomfort, eructation, heartburn and thirst, which may be relieved by drinking large quantities of water, or by the taking of food. In the continuous form the same symptoms are present, the pain is even more severe, and especially prone to come on at night; there is a capricious appetite and the pain may occur several hours after food is taken."

Anders gives no thought to ulcer as a cause of hyperchlorhydria; in fact, he evades an opinion as to the cause. He passes over the etiology in a few short sentences, and says: "Highly seasoned food and alcoholic stimulants may cause the condition." Then he goes on and gives the symptoms as follows: "The patient at first complains of uneasiness in the epigastrium one or two hours after meals; later, this amounts to pain of moderate severity, and soon follows every meal, after a like interval." He says: "Gastric ulcer must be eliminated, because in this disease, pain is aggravated immediately after eating and is not relieved by food, or large doses of alkalies." He says: "Ulcer often leads to vomiting," but here he is mistaken, according to the observations of Moynihan, in whose large experience vomiting is found infrequent. Wilson says: "Hysteria and general neurasthenia predispose to the condition." Then he gives the following train of symptoms: "Gnawing, burning or severe pain, developing two to four hours after eating, relieved by food." In every one of these authors quoted, the symptoms given are the proven symptoms of duodenal ulcer, as given by Moynihan, the Mayos and others of wide experience in this condition, without the least variation except brevity. Is it any wonder that Moynihan makes the unqualified statement that "Recurrent severe hyperchlorhydria is duodenal ulcer?" The symptoms which characterize duodenal ulcer were evidently unknown to these authors, and the frequency of the disease quite unappreciated. Only those patients who suffered from the complications of the late stages, such as stenosis, hemorrhage or perforation, were known to have an ulcer of the

duodenum, and then the diagnosis was verified on the post-mortem table.

Taking into consideration the great fatality of duodenal ulcer if diagnosis is not made before perforation occurs, it certainly is a discredit to the profession, due in a measure to lack of more specific thoroughness in observation on the part of our internists, and the writings of prominent authors, who seem to pass over the question in as short a manner as possible, not realizing the gravity of the situation, nor the disastrous results of faulty or insufficient writing, on the subject of gastric or duodenal ulcer. But I believe that in more recent editions of books on internal medicine, the authors are giving more heed to the teachings of the great surgeons like Moynihan, Robson and others, and when they do, there will be fewer deaths from acute indigestion such as we see frequently recorded now in the daily press. All those cases of death from acute indigestion are, to my mind, perforated duodenal ulcer. When we realize the brilliant results obtained by surgical interference in these cases, then the strength of an early diagnosis becomes more apparent, and as medical men we owe it, as a duty, to realize this condition in its early, and therefore operable and curative, stage.

The symptoms of duodenal ulcer, as given by Graham, emphasize four important points, as follows: (1) Periodicity of attacks of gastric and duodenal ulcers. (2) The number of years through which these attacks and their intermissions and remissions have run, before relief was advised or accepted. (3) The characteristics of pain, its great diagnostic significance, and its place in differential diagnosis. (4) The ready control of all symptoms, during the attack, by food, alkalies, irrigation or vomiting.

The foregoing is a brief description of the symptoms of chronic duodenal ulcer, and if a patient presents these symptoms, a diagnosis of duodenal ulcer may confidently be entertained and there is no need for further evidence than that which is here given. Moynihan says: "I constantly operate upon the strength of the history alone, and as often do I demonstrate chronic duodenal ulcer, a tangible or visible lesion, as the cause of the symptoms. Of nothing concerned with the relationship between altered structure and altered function am I so convinced, as that symptoms such as I have portrayed owe their origin to, and are dependent for their perpetuation and their periodic repetition upon, a chronic duodenal ulcer."

While the above description is usually pathognomonic of duodenal ulcer, still we will meet with difficulty at times in differential diagnosis. The two conditions with which it may be confounded are cholelithiasis and gastric ulcer. Still, from the history alone, Moynihan in 100 consecutive cases, erred but three times; in two cases there was gall stone disease, and in the third gall stone and appendicitis. In the differentiation from gastric ulcer there is, as a rule, but little difficulty. If pain after food does not appear for two hours or more, it may be said with reasonable confidence that the ulcer is in the duodenum. The importance of time element in gastric and duodenal ulcer is significant. If pain oc-

curs within an hour or so after food, the ulcer is surely in the stomach. If pain comes on one or two hours following food, the ulcer is in the pyloric antrum. Again, the striking recurrence of duodenal ulcer at certain seasons of the year is not shared by gastric ulcer. Duodenal ulcer attacks usually recur in the cold weather months following a chill. Patients with duodenal ulcer usually complain of cold feet and hands, but the blood pressure is usually high. The pain in gastric ulcer differs from duodenal ulcer in its actual and referred locations. In gastric ulcer the pain is usually referred to the middle line, higher up than in duodenal ulcer. The pain in duodenal ulcer is usually on the right side of the median line, radiating over the right costal margin and towards the right breast. In gastric ulcer the pain more often radiates to the left costal margin and left breast. Pain in the back is said to be a constant feature of gastric ulcer when the pancreas is eroded, resembling the pain of acute pancreatitis. Tenderness on deep pressure is always to the right of the median line, if at all present in duodenal ulcer. In gastric ulcer it is to the left. If the duodenal ulcer is adherent, the pain on deep pressure is decidedly more pronounced, so when this occurs on palpation we may confidently expect to find many adhesions. In case of hemorrhage we find hematemesis preponderating, while, with duodenal ulcer, melena is the more pronounced condition. It seems that the chief difficulty in differential diagnosis would be in cholelithiasis, but a careful recording and observation of the history should enable one to make a correct diagnosis in nearly every case, when we remember the definite attacks caused by diet instantly relieved by alkalies, or by lavage, followed by complete abeyance of symptoms, no such relief following this line of treatment in gall stone disease; neither have we the definite periodicity of attacks following food. Then, again, the pain in the two conditions varies widely. In the great majority of cases of duodenal ulcer the pain is severe, though tolerable. In cholelithiasis, on the other hand, it is often almost unendurable, usually requiring an opiate or even inhalations of chloroform for relief. In hepatic colic there is often a "catch in the breath," due, no doubt, to involvement of the diaphragm by inflammatory action. We also have a feeling of great depression, with nausea and sweating. The pain begins suddenly and often passes away quickly, being abrupt, both in onset and relief, differing greatly from the pain of duodenal ulcer, which comes on gradually, and ceases gradually, or not at all, until food is taken.

Food or an alkali has no influence in relieving the pain of gallstone, and the mention of food is even repugnant. The sensation of pain felt in the right shoulder blade is very suggestive of gallstone impaction in the cystic duct, and J. B. Murphy has shown that the introduction of a probe into the duct, through a cholecystostomy opening, is at once recognized by the patient, by the pain referred to the right shoulder blade. In gallstone disease there is absolutely no approach to the regular, orderly sequence of events that is so strongly suggestive of duodenal ulcer. The symptoms of duodenal ulcer, hematemesis and melena, are not seen in cases of gallstone disease in which a difficulty of diagnosis is likely to arise.

There is an exception to this, and that is in malignancy of the gall-bladder, involving the pyloric end of the stomach and the esophagus, for here we may have the most violent hemorrhages from the mouth and bowel.

The so-called condition "appendix dyspepsia" will sometimes give rise to symptoms that are with difficulty distinguished from those of duodenal or gastric ulcer. Among the symptoms, the chief one is pain, or in many instances a continuing discomfort more than a pronounced pain. This feeling comes after a meal, and is spoken of as indigestion; it is almost always confined to the epigastrium, or is worse there. Pressure in the right illiac fossa will often cause the same sensation of pain or discomfort in the epigastrium as follows taking food. The time of pain following food is variable from a few moments to several hours. Some articles of food produce more discomfort than others. In some persons red meat is not taken without trouble, while in others, starchy food causes uneasiness; flatulency, fullness and acid sour belchings are common, as is a feeling of intestinal unrest. Vomiting is usually the most troublesome symptom, coming on usually within a few minutes, or half an hour after a meal, and is the one means by which relief is obtained.

I want to call your attention, in passing, to a condition which might be confounded with duodenal or gastric ulcer, viz: Banti's disease, or splenic anaemia. In this disease we have hematemesis and melena. It is therefore the one condition that it is supremely important to bear in mind in cases of severe hemorrhage from stomach or bowel, especially so when the characteristic disturbances of digestion are absent. Of course a careful examination of the spleen and a blood count would instantly show the condition. One other condition is to be borne in mind, and that is hemophilia. Here it is again necessary to study the anamnesis well and carefully. Cirrhosis of the liver causes bleeding by pressure on the esophageal veins, and might cause error in diagnosis, but a strict inquiry into the anamnesis will dispel all doubt.

Coming now to the treatment of duodenal or gastric ulcer, I shall not dwell long since I am sure it has now become a generally accepted fact that the one real chance for cure in duodenal ulcer lies by way of the operative route. In considering surgical intervention there is one statement to which there are no exceptions, i. e., that any duodenal ulcer which has been the cause of protracted and recurrent symptoms, is always visible from the outside of the intestine, is always palpable, and therefore always demonstratable. It is only when attacks recur that a diagnosis of chronic duodenal ulcer can confidently be made, **and it is only when the diagnosis is made** that surgical interference is necessary. In a first attack, or even a second, medical treatment should be resorted to; if it is ever of any value, it is then, when the periodicity has not been fully established. The operation selected will depend upon the conditions disclosed at the time of its performance. If the ulcer is small, on the anterior surface of the duodenum and free from adhesions, it may safely be excised and the wound closed. If, on the other hand, the ulcer is large,

involving more than half of the circumference of the gut, or if the ulcer is a multiple one, then the proper procedure is gastro-enterostomy, either posterior or anterior. In the great majority of cases this is the most applicable, and its results the most satisfactory. But in order to get not only immediate but permanent relief, the ulcer must be so large, as either in its present form, or by the time healing is complete, to offer obstruction to the gastric contents, or means must be taken to obstruct the pylorus, so fluid and food cannot pass through. The best means to accomplish this is by infolding the ulcer, which at the same time assists the ulcer in its healing, and prevents perforation into the peritoneal cavity. In the earlier work on gastroenterostomy, no paper on the subject was complete without reference to the "vicious circle" with all its direful sequelae, which was the great bugbear of this operation. At the present day it is seldom mentioned because we have learned two important points in gastroenterostomy; first, be sure that the opening between the stomach and bowel is amply large to prevent closure, and second, be sure that no food can pass through the duodenum. If the duodenum is not fully closed to food, then the Roux operation should be combined with a gastroenterostomy.

In the future I hope some of the surgeons whom I have seen do the operation of gastroenterostomy, where the ulcer was neither visible, palpable and consequently not demonstrable, will take heed and at least save their unfortunate victims from all the disastrous consequences of a "vicious circle," by at least obstructing the pylorus, and if need be, by ligature. From past observation I am convinced that this operation is often done where there is absolutely no warrant for it, either through lack of education, poor judgment, or what is, I am afraid, more often the case, greed for gold and operative reputation.

In conclusion I wish to say, study the anamnesis carefully and cautiously, and in no other disease is the diagnosis so morally sure from a clinical standpoint alone as it is in this serious and readily curable disease—duodenal ulcer..

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*A TREATMENT OF FRACTURED FEMUR.

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It may be said without fear of serious contradiction that many surgeons and most general practitioners approach the treatment of fractures with no little misgiving. The dislike for this part of practice may be found, as in many other phases of our profession, not so much to the lack of skill as to a lack of knowledge of the best procedure to adopt. Waiving this, however, we are conscious of the fact that an error in the treatment of fractures may be followed by permanent impairment of form or function of a limb, which may not only seriously effect the patient's future but be a constant source of chagrin to the physician.

It is with no sense of apology, therefore, that I would briefly call your attention to the treatment of fractures of the femoral shaft. Though comparatively little used in this section of the country, it is at once an extremely simple and most efficient apparatus for the treatment of this condition. I refer to the Hodgen splint. This device is by no means new, it being a modification conceived by Hodgen many years ago of the old Nathan Smith anterior splint. The original Hodgens was difficult to keep in order, and it is due to Dr. Geo. S. Brown of Birmingham, Ala., that we have the splint in the perfected form as shown here. It is the original Hodgens splint and not Brown's efficient modification that we see pictured in most text-books. At a risk, therefore, of being somewhat tiresome, I shall briefly describe the splint, for a comprehensive working knowledge cannot be gained from most of the text-books on surgery.

Let me say in the beginning that any blacksmith or tinsmith can make the splint in a very few minutes, if given the dimensions. The material is three by sixteen, brass or iron, or number four wire, all in one piece. The distal extremity is six inches wide and the proximal eight, the ends of the latter being connected by an arch of such height as to pass well over the thigh. The length over all is thirty-six inches. On the upper side of the frame four loops of smaller wire are placed, those nearer the proximal extremity being nine inches from the end, while those toward the distal extremity are 10 inches from its respective end. These loops are for the supporting of cords, or straps. Twelve inches from the proximal end the splint is bent at an angle of about 170 degrees. This angle will allow the limb to assume a position which gives most comfort, viz: that of partial flexion. To the supporting loop are attached adjustable straps with buckles, or small cord equipped with tent blocks, and are passed through a ring about 14 inches above the frame. The latter is attached to a rope or sash cord swung from the ceiling, or some convenient support not connected with the bed.

A piece of ordinary, unbleached domestic, or light canvas, is so attached to the frame as to form a hammock in which the limb is to rest. This is draped across in such a manner as not to form wrinkles and pinned on either side with safety pins.

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The preparation of the limb is the same as one would adopt for the application of a Buck's extension. That is, the limb is shaved on each side, dried, and 2-inch adhesive applied extending well above the knee. Now the malleoli are protected, and a spiral reverse bandage thrown around the limb, paying especial attention to the region of the ankle, as here the adhesive will loosen if not held firmly in place by the bandage. To the free ends of the adhesive short pieces of bandage are attached which are to hold the limb to the distal extremity of the splint. This will supply traction when the splint is in place, and, in fact, is the only attachment the limb has to the splint.

The limb and the splint having been prepared, we are now ready for the application. With the limb in the hands of an assistant, standing at



the foot of the bed, and making steady traction, the splint is slipped on the limb, the loop over the thigh, and passed well to the perineum. The bandage, which has been attached to the ends of the adhesive, on the leg, is tied to the cross piece at the end of the splint. The splint containing the limb is now suspended on the sash cord hanging from the ceiling.

A pair of spring scales may be interposed between the rope and the ring for the measurement of the amount of traction, first weighing the limb and then moving the bed away from the point of suspension until an additional ten or fifteen pounds register, which, of course, is the amount of traction imposed upon the limb.

The eversion is slightly over corrected, as well as the normal longitudinal axis of the limb preserved by adjusting the four straps, or cords,

with tent blocks, as the case may be. The bed is pushed to one side so as to slightly abduct the limb. The pull on the limb will have a tendency to drag the patient toward the foot of the bed, so the patient must be instructed to keep well up to the head. Indeed, he will soon learn that the constant traction of ten or fifteen pounds will overcome the muscle spasm and give more comfort when in the correct position, so this advice, as a rule, will not have to be repeated.

The splint at all times must be entirely suspended. Rest upon a pillow or bedstead will defeat every object of the appliance. After attention to the splint is nothing. An occasional adjustment of the supporting cords or straps is all that is required.

The principle upon which the splint works is as simple as the application and its maintenance. The femur is surrounded more completely and by larger muscles than any other bone of the body. After fracture, gravity and muscular contraction give rise to the deformity. By supporting the limb in the hammock and preserving the normal axis of the shaft of the bone, gravity is overcome. This may be done, yet the deformity due to muscular contraction not be dissipated. By making constant and sufficient traction, not only is the muscular spasm overcome, but the muscle itself is paralyzed and the lower fragment of the fractured bone is drawn gradually in the axis of the bone, to the place from which it came. The ham-string muscles behind and the quadriceps extensor anteriorly form strong longitudinal bands when stretched tight and which efficiently splint the two fragments of bone.

At the end of the first week (or even at the beginning), the patient may be allowed to sit up in bed with a back rest. The patient may be moved about in bed without the slightest fear of disturbing the bones at the seat of the fracture, for when the body is moved the limb and the splint moves as a whole from the hip joint. I have never seen more than a half inch of shortening following its use in simple fracture. In most cases there is no shortening. Dr. Gallagher reports cases of actual lengthening. Unfortunately I have never kept a record of the cases treated, as most of them occurred in the hospital in which I was a resident.

The application of this splint is by no means limited to the treatment of simple fracture. Compound fractures may also be treated with good results. I would like to emphasize its use in hip joint fractures (intra-capsular) which, as you all well know, occur in old people.

On June 24, 1913, Mrs. J. received an extracapsular fracture. I applied this splint and kept it on six weeks. The result is all that one could expect. No shortening, no deformity. This patient is 45 years old and is practically an invalid. Has been in bed almost half the time for the past ten years.

1. The splint is cheaply and easily made.
2. It is easy to apply and easy to keep in order.
3. Gives patient complete comfort.
4. The results are in almost every case perfect.
5. Its especial use is in treating intra-capsular fractures of femur.
6. The patient sits up in bed from time splint is applied.

*THE TREATMENT OF NEURALGIA.

By G. Wilse Robinson, M. D., Kansas City, Mo.

A review of the history of neurological literature will reveal to the investigator the fact that neurology has kept pace with the other branches of medicine in its development. Diagnostic methods have so greatly improved that ignorance is now the only excuse that can be accepted for a failure to diagnose correctly neurological conditions excepting in cases of extreme rarity. But, though the diagnosis be ever so correctly made, the patient is still more interested in treatment than in diagnosis, and it is in the treatment of neurological conditions that the greatest advancements are now being made. I shall refer to some of the more important phases of neurological therapy. The use of celluloid splints in the treatment of paralysis, following poliomyelitis and other forms of paralysis, I believe to be one of the most important of the recent advancements along therapeutic lines. By the aid of these splints all the deformities following poliomyelitis can be prevented and practically all the afflicted children made to walk. Section of the posterior nerve roots for the relief of contractures, especially those of diplegic children, is bringing relief where no relief could previously be had. Treatment of chorea with aspirin has revolutionized our ideas of this disease as well as lessened its terrors.

The recognition of the toxic etiology of disseminated sclerosis has suggested to us a line of treatment of this condition which, while it does not cure, does benefit more than any treatment of the past. The application of psychoanalysis to the diagnosis and treatment of the neuroses and neuro-psychoses restores many patients to health who can get no relief from other methods of treatment.

In my opinion one of the most important advances ever made in neurological therapy is the so-called Swift-Ellis Auto-Sero-Salvarsan treatment of syphilis of the central nervous system. This method of treatment was developed out of the knowledge that after the administration of salvarsan in the blood of a syphilitic patient no arsenic was found in the cerebro-spinal fluid, and the additional knowledge that the blood may be rendered negative to a Wasserman and the cerebro-spinal fluid continue positive. The method in brief is as follows: Salvarsan or neo-salvarsan is injected into the vein of the patient with syphilis of the central nervous system. One hour later a quantity of blood, 25 or 30 cc is withdrawn; the cells are separated from the serum; 12cc of serum is used. This serum is heated to 56 degrees centigrade for 30 minutes; 18cc of sterile salt solution is added and the mixture is set away 24 hours. At that time a lumbar puncture is made, a small quantity of cerebro spinal fluid allowed to flow away and the mixture is injected into the sub-arachnoid space. The patient is kept in a horizontal position, with the head lowered for about twelve hours. This treatment is repeated at the end of seven to ten days and at a like interval until five or more doses are given.

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As a result of the labors of Noguchi, Mott and various other investigators, we now know that the syphilitic virus is actively present in the brains of paretics and in the cords of tabetics. No treatment in the past has availed in checking the progress of these two diseases, but the Auto-Sero-Salvarsan treatment is now offering to them at least a modicum of hope. The effects of this treatment are to change the reaction of the cerebro-spinal fluid from a positive to a negative Wasserman, indicating a destruction of the spirochaeta; to reduce oftentimes to normal the cell count of the cerebro-spinal fluid, indicating a subsidence of the meningeal inflammatory changes; to reduce the amount of globulin present in the fluid, indicating a checking of the degenerative nerve changes, and to correct many, if not all, of the clinical symptoms.

Many reports of emphatic improvement have been made and some are reporting complete cures. My personal experience with the treatment has been very satisfactory. I have the greatest confidence in it and shall continue its use, I hope and believe with good results.

Another phase of neurological therapy to which I shall refer at this time is the treatment of neuralgia.

Neuralgia is a symptom and not a disease. The underlying pathology is an inflammation of a peripheral nerve or nerves, the inflammation being of such slight intensity that the changes can not be demonstrated microscopically. Neuralgia is in reality a symptom of neuritis. Those cases of neuritis which we designate as neuritis are of such intensity as to cause changes in the peripheral nerves of such a crude nature that they can be demonstrated microscopically. In neuralgias the pain is practically the only symptom, while in the neuritides the disturbances of sensation of motility and muscular atrophy are commonly present. Disturbances of sensation may be present in the neuralgias, but the disturbances of motility and muscular atrophy do not occur as symptoms of this condition. Etiologically the neuralgias and the neuritides are intimately connected. A common causative incident may produce in one case a neuralgia and in another a neuritis.

The three most important causative factors which produce the neuralgic and neuritic manifestations are as follows: 1st. There are the various types or sub-varieties of mechanically acting processes, such as crushing, pressure, tearing, cutting, etc. These produce destruction of the peripheral nerve tissue as such. 2. There are changes produced in the nerves due to poisons of an absorbable sort introduced from without, such as lead, alcohol, arsenic, etc. 3. There are changes produced by the action of organisms or their products, by poisons of an endogenous nature, such as diabetes, so-called auto-intoxication, processes and others of a similar nature.

Therapeutically the neuralgias and neuritides present very similar problems. As neuralgia means pain, it is the relief of the pain with which we are concerned in its treatment. This may be limited to the sensory distribution of a peripheral nerve or nerves or referred to the surface distribution. In order that we may successfully relieve the neuralgic pain we

must understand the producing cause and the underlying factors at work. We must extend our knowledge to an inclusion of two sets of facts—one having to do with the cause locally at work at the point of pain production, and the other having to do with the underlying causes, if any, which are the activating agencies back of the local area of disturbance.

For purposes of therapeutic consideration various classifications of the neuralgias have been offered—regional, etiological, pathological, etc. For convenience of consideration the regional classification is the best and shall be used at this time. There is perhaps no portion of the body which may not be afflicted with neuralgia, but by far the most important and numerous types of the affection are found in the distribution of the fifth cranial or trigeminal nerve.

Dental neuralgia is a very common form of neuralgia of the trigeminal. This may be due to caries with an exposed pulp, to inflammation of the periodontal membrane around a dead tooth, to an inflammation of the inferior dental nerve, from direct pressure of the roots of the second and third molars or by injury of the nerve in extracting these two teeth. It may be due to an infected molar or to an erupting wisdom tooth. Dental neuralgia from any of these causes may be severe in type, may radiate over the entire distribution of the fifth nerve of same side to back of head and neck; it may be so severe as to be mistaken for a true *tic douloureux* or it may cause an hysterical delirium. With this spreading neuralgia there are likely to be very definite areas of tenderness of the skin, varying with the tooth affected. These areas of tenderness do not occur in *tic douloureux* and may be found useful in diagnostic differentiation. The local treatment of dental neuralgia must be adapted to a removal of the cause. A full dose, ten to fifteen grains of quinine, sometimes will arrest at once the radiating neuralgia of dental origin or better results may be obtained by repeated doses of ten grains of butyl chloral hydrate in combination with from five to seven grains of phenazone. This may be given hourly for three doses and then every four hours if necessary.

Supraorbital Neuralgia. Pain radiating from the eyebrow up over the forehead may be due to errors of refraction or glaucoma. Appropriate treatment will relieve. This type of neuralgia is not unusual in women during menstruation, gestation, or when greatly debilitated. Quinine combined with a coal tar analgesic may give relief. Tonics should be administered, but strychnine cautiously, as it frequently intensifies trigeminal neuralgia.

Periodical supraorbital neuralgia, or brow *ague*, may be of malarial origin or might follow an attack of influenza. Attacks may be of daily occurrence, beginning in the morning and lasting until late afternoon. There is a tenderness over the supraorbital notch and the pain may be of such a severe character as to be unendurable. Drugs are of no benefit, excepting morphine hypodermically in 1-4 grain doses one-half hour before the expected attack. This treatment may effect a cure. Quick relief and certain cure may be effected by an injection of four or five drops of 80

per cent alcohol in the supraorbital nerve. This can be injected at the supraorbital notch. The needle is inserted in the skin above the notch, 1-4 inch below the eyebrow; when the nerve is entered a sharp pain is felt radiating over the forehead. After injection of the alcohol a strong burning feeling is experienced, spreading up over the forehead as far back as the crown. This will be quickly followed by relief of the pain and the entire area of distribution of the nerve will be anesthetic.

Trigeminal Neuralgia or Tic Douloureux.—This is a severe and intractable form of neuralgia and affects both sexes equally, usually after the age of 30. Harris has observed its beginning as early as the 17th year and as late as the 81st. The pain rarely affects all three branches of the nerve. The first is the least frequently affected and the second and the third branches may be affected singly or together on the same side. It rarely occurs bilaterally. When the first division is affected, the supraorbital branch is usually the only part involved. The spasms of pain may be of daily occurrence, continuing for years, or they may occur more or less periodically, lasting for several weeks or months and then disappearing for a period of time. In the treatment of this condition, drugs are of little value; even morphine frequently fails to give relief and should always be used cautiously, as the danger is great of the morphine habit being contracted. Of the drugs which may be tried, butyl chloral hydrate, 15 to 20 minims, is the most successful in relieving the pain. Aconitine, 1-200 grain, given in pills three times per day, may be of service. The only sure way of arresting the pain is to destroy the branch of the nerve which supplies the painful area. If more than one branch of the fifth nerve is involved a destruction of the gasserian ganglion should be undertaken by an injection of alcohol into the ganglion. This method of treatment was originated by Shlosser of Munich and has been perfected by Wilfred Harris and Purves Stewart of London and Picard of Paris.

The supraorbital nerve is the only branch of the first division affected. It can be attacked at the supraorbital notch. The intraorbital branch may be injected at the intraorbital foramen. This will relieve the pain, if confined to the cheek and nose, but if the gums and teeth be affected, as is usually the case, the second division must be attacked at the foramen rotundum, and the third division may be injected at the foramen ovale.

Before a further consideration of the injection of the individual nerves, I shall give a general description of the technique applicable to all such operations. In the first place the patient should not be given a general anesthetic. Twenty minutes before the operation is to be begun, a hypodermic injection of 1-200 of a grain of hyoscin and 1-4 grain morphine should be given. This will suffice to keep the patient quiet during the operation. Careful asepsis should be practiced in the preparation and handling of the instruments to be used. The instruments necessary are one needle and two syringes. One of the syringes should be filled with 5 per cent sterile novocaine solution and the other with 90 per cent alcohol. The point of entrance should be marked, cleansed and frozen by means of the application of ethyl chloride.

The needle is quickly pushed in to the approximate depth in the direction in which the nerve is expected to be found. A few drops of novocainè solution is then injected and a search for the nerve is begun. Do not expect a sensation over the area of distribution of the nerve when you strike it. You may get a burning, stinging sensation over this area, but frequently you do not. When the patient complains of any pain whatsoever, inject a few drops of novocaine solution and then a few drops of alcohol. Wait three to five minutes and then test the sensation of the skin supplied by the branch which you are attacking. This is the only test worth considering. If you find a beginning, anesthesia and analgesia of the skin, you know that you are in the nerve and can then inject the remainder of your alcohol with the assurance that you are going to get the result which you are seeking.

He who undertakes to do nerve injection work must be prepared to work patiently and diligently and seek until he finds. He knows that the nerve is there and that if he seeks for it in the right locality he will find it. As stated above, there is but one symptom which tells you that the injected material has gone to the right place; that is the anesthesia and analgesia of the surface to which the nerve is distributed. I neglected to state that the needle used for this work should have a short point and every precaution should be taken not to get blood into it. If a drop of blood does enter the needle it must be removed and cleansed, as it will be impossible to inject your alcohol through the needle until the blood is removed.

If a hemorrhage occurs at any stage of the operation, the needle should be removed immediately and pressure made over the point of puncture. After the hemorrhage ceases, if the operation has not been completed, it may be resumed. The second division of the fifth nerve is injected at the foramen rotundum, through the cheek just in front of the condyle of the lower jaw, using a needle 8 to 9 centimetres long and 1.2 millimetres in diameter with a short point. The needle is pushed inward and upward at an angle of about 40 degrees until the external pterygoid plate is reached, when the point is then slowly worked forward until it slips in front of the edge of this bone and is pushed inward for another five or six millimetres, when the superior maxillary nerve should be struck at a depth from the surface of 5 to 5 1/4 centimetres. If the injection is successfully made there will be an anesthesia of the skin of the cheek, upper lip, and side of nose, of the upper gum and palate as far back as the middle of the soft palate.

The third division of the fifth nerve should be injected at the exit through the foramen ovale. A needle 6 1/2 centimeters in length and .8 millimeters in diameter should be used. This is pushed through the skin at a point 3.2 centimeters in front of the external auditory meatus, between the lower border of the zygoma and zygomatic notch of the lower jaw. The needle should be pushed inward, very slightly upward and backward to a depth of 4 1/2 centimeters. The depth at which the nerve will be struck is of course slightly variable, depending upon the shape and breadth of

the skull and character of development of soft parts. The symptoms indicating a successful injection of this division of the nerve are anesthesia and analgesia, over the corresponding side, of the lower lip and chin, lower gum, teeth and tongue and over the area of distribution of the auriculo temporal branch. There is also slight motor palsy of the temporal, masseter and pterygoid, and some slight stiffness on opening the jaw, but this is not severe and passes away in a few days. The relief of the pain is not always instant, but it may exist for a few days after the injection is made. In searching for this branch of the nerve, if the needle is pushed in too far it may penetrate the pharynx, and if the solution is then injected it will be felt in the back of throat, or the needle may penetrate the eustachian tube, when a sharp pain is felt in the ear. If it is desired that the gasserian ganglion be injected, after the third division is penetrated and injected, the needle may be pushed 3-8 of an inch farther through the foramen ovale into the ganglion. The amount of alcohol injected into the ganglion must be carefully regulated. One or two cubic centimeters of alcohol may be used in the second and third divisions of the nerve. The alcohol should be very slowly injected into the ganglion and as soon as a very slight anesthesia appears over the distribution of the supra-orbital branch, the injection should be stopped. The cells of the first division are situated at the inner side of the ganglion and if they are completely destroyed ulcer of the cornea and perhaps loss of eye may result. A successful injection of the various divisions of the fifth nerve gives relief of neuralgia for a period varying from ten months to two years, at which time there is usually a recurrence and another injection must be made. An injection of the gasserian ganglion destroys the cells and gives permanent relief. Surgical removal of the gasserian ganglion is a severe and dangerous operation. A proper injection of the ganglion is entirely void of danger and gives as good or better results than removal.

As an illustration of what can be done by injection, I wish to cite the following case. Sunday, January 11th, I injected the third division of a patient, but as she also showed involvement of the second division, on Tuesday, January 13th, I injected the gasserian ganglion. This patient was a woman 78 years of age and had had a very severe type of tic douloureux for twelve years. The spasms were of daily occurrence and of such a severe type that during a considerable part of the time she could only take liquid nourishment, and that through a glass tube or by means of a spoon on the opposite side of the mouth as bringing anything in contact with the affected side caused very severe paroxysms of pain. During the second injection she went to sleep before the operation was finished and since the injection of the ganglion there is complete anesthesia, analgesia and loss of pain over the entire area of distribution of the second and third divisions of the same side with a very slight anesthesia over the area of distribution of the supraorbital.

She has continued entirely free from all pain over these areas, has been able to eat with freedom and discontinue the use of codeine, which she had used continuously for a long period. She was very weak at the

time of the operation and could not have survived the gasserian ganglion removal.

Occipital neuralgia, involving the area of distribution of the great occipital nerve, may be very intractable, refusing to yield to the application of internal or external analgesics. Injection of the nerve gives immediate relief. The scalp should be punctured on a horizontal level with the external auditory meatus and 3-4 of an inch from the median line. A radiating pain darting up to the crown indicates that the nerve has been entered. A few drops of novocaine solution are injected, followed by five to ten drops of 90 per cent alcohol.

Brachial and Scapular Neuralgia.—Brachial neuritis is a very common, troublesome and painful complaint. It may last many weeks or months and pain may be the only symptom. The pain radiates from the shoulder down the arm to the wrist and fingers, but does not follow the course of any particular nerve root. Changing areas of tenderness may be present and the pain vary in intensity from day to day, occasionally disappearing entirely for a few days and weeks and then returning with renewed intensity. The underlying pathological condition is usually a rheumatic fibrositis. During treatment the patient should rest in bed with the arm wrapped in cotton-wool and supported on a pillow; cataphoresis may be used with the cathode over the clavicle soaked with salicylate of soda solution; the anode wrapped around the wrist soaked with lithium carbonate solution. A current of from 8 to 15 milliamperes, constant in character, may be used for 20 minutes. Radiant heat applied by means of an incandescent lamp backed by a strong reflector may be of much benefit. Methyl salicylate or menthol should be used locally. Phenacetin, pyramidon, and aspirin in full doses internally may relieve. Some cases can be cured quickly by means of alcoholic injections. A careful search is made and if painful spots are found from which radiate pains down the arm, such spots being usually located in the scapular region, an injection of the Novocaine solution followed by 5 to 10 minims of alcohol in the region of the tender areas is made. The pain may be intensified for the first twenty-four hours, but after this the radiating pains cease and recovery quickly ensues.

Toxic Diathetic Neuralgias.—Affecting the head or limbs. These forms may be met with in gout, diabetes, anemia, malaria, syphilis, Bright's disease, chronic poisoning by lead or alcohol. A careful examination and discovery of the cause will indicate the treatment.

Visceral Neuralgia.—Visceral neuralgia may simulate pleuritic pain, angina, gastric, or duodenal ulcer, gall stones, renal calculus or appendicitis. Neuralgia in the region of the solar plexus may be responsible for vague abdominal pains and neurasthenic symptoms. Rest in bed, hot applications, radiant heat, abdominal belt with one of the coal tar analgesics internally will usually give relief.

Post Herpetic Neuralgia.—This form of neuralgia may occur with great severity in elderly people over 60. The intensity of the pain has no re-

lation to the extent or degree of the scarring of the skin. This is a most difficult pain to relieve and is usually resistant to internal medication and local applications. Injection of alcohol down to the intervertebral foramen may arrest the pain. Failing to give relief by this method, a laminectomy and section of the posterior nerve roots is the only treatment which offers hope of relief.

Painful Heel.—Before any form of treatment is instituted for the relief of this not uncommon type of neuralgia, a careful search should be made for a bony spike growing from under the surface of the calcaneum, foreign bodies, inflamed bursae, under the tendo Achilles, etc. In the absence of any of these causes an injection of eucain followed by one cubic centimeter of salt solution at the point of tenderness will frequently give immediate and permanent relief.

Psychalgia-neuralgic pains may be mental in origin. They are also called habit or imperative pains and may persist for many years. They are the result of obsessions and should be treated accordingly, but before making such a diagnosis a very careful investigation of all phases of the case should be made. Mental pains are never limited to the area of distribution of particular nerve trunks or roots.

Functional neuralgia, like functional disease, should never be diagnosed until a possibility of the condition being organic has been most thoroughly investigated.

Sciatica.—Acute inflammation of the sciatic nerve may occur without any other symptom being present excepting the pain. These cases we consider a type of sciatic neuralgia. The cause of the condition is usually a fibrositis of either rheumatic origin or the result of a fall or some muscular strain. Anti-rheumatic remedies may give the desired relief. During the acute stages the patient should rest in bed; cataphoresis, with salicylate of soda and lithium carbonate should be used twice daily for 20 minutes. A constant current battery of 18 cells is used. A flat pad 7x4 inches attached to the negative pole, soaked in saturated solution of salicylate of soda, applied lengthwise along the buttocks over the nerve. The larger pad is attached to the positive pole, soaked in lithium carbonate solution and applied across the surface of the thigh just above the knee. A current of from 20 to 30 milliamperes should be used. Avoid sudden breaks of the current and burning of the skin. After ten days or a fortnight of this treatment, massage, passive movement, especially flexion of the hip; keeping the knee straight may be commenced. This will prevent adhesions between the nerve and surrounding tissues.

Other forms of treatment besides rest in bed and electricity, are blisters along the thigh over the course of the nerve, frequently repeated, radiant heat, arc lamp rays and liniment such as methyl salicylate and soap liniment. Tincture of iodine may be used daily, painted over the course of the nerve and the iodine may be advantageously combined with the cataphoresis treatment, painted over the buttocks beneath the cathode. If sleep be interrupted by the pain, ten grains of asperin with five grains

of pyramidon may be given at night, or an injection of morphine be made. In the obstinate cases quick relief may be obtained and a rapid cure effected by the injection of the sciatic nerve with normal saline solution. I prefer to make the injection at the great sacro sciatic notch. The needle is inserted $3\frac{1}{2}$ to 4 inches horizontally outward from the top of the intergluteal fold; the nerve is found at a depth of $2\frac{1}{2}$ to 4 inches. When it is penetrated a sharp, stinging pain is felt, radiating down the leg and into the foot. Two cubic centimeters of 2-1-8 per cent novocaine solution is injected into the nerve; without removing the needle a larger syringe is attached and 100 cubic centimeters of warm sterile normal saline solution is injected. The effect is to inflate the nerve locally, break down adhesions and separate the fibres. Immediately following the injection there is experienced a warm swollen sensation in the foot and leg, with usually the immediate disappearance of the sciatic pain. The patient should remain in bed for twelve hours after the injection. Alcohol and carbolic acid have both been recommended for the purpose of injecting the sciatic, but they will most certainly cause paralysis which may extend over a long period of time. In some cases after using the saline the pain returns after a few days or weeks, when another injection should be made, but if the sciatica is associated with painful spots over the ilium an injection of alcohol down to the bone, as is recommended in the treatment of shoulder neuralgia, will oftentimes prove very beneficial. Patients who have just recovered from an attack of sciatica should be careful not to lift heavy weights, or to exert any severe strain upon the back muscles, as such exertion may cause a relapse. In old standing chronic cases of sciatic neuritis which have persisted for a period of six months to a year, or longer, the neuritis may damage the nerve fibres to such an extent that disturbances of sensation may be present with paralyses and muscular wasting. Even in these cases three or four large injections of saline solution may effect a cure. If a cure can not be obtained by this treatment, cutting down on the nerve and splitting the sheath longitudinally for several inches may give relief.

*SANITARY CONDITIONS IN ALASKA.

W. R. Marks, M. D., Vinita, Oklahoma.

I have recently returned from Alaska, where I was surgeon in the United States Coast and Geodetic Survey, having spent seven or eight months along the southeastern and western coast.

I am indebted to the United States Public Health Service and medical officers on other boats of the Coast Survey, working in different parts of Alaska, for valuable information. Physicians and other persons who possessed knowledge of the conditions in which I was interested, were interviewed.

The area of the Territory of Alaska is approximately one-fifth that of the United States. Transportation facilities are inadequate, uncertain, and at

*Read before the Craig County Medical Society at Vinita, Okla., February 3, 1914.

times difficult and consists of regular passenger steamers, private launches, trains, teams and, in winter, the dog teams are used almost exclusively in the interior.

Population. The population of Alaska, according to the census of 1910, was 64,356; more than one-half were whites. The native population had decreased 14.5 per cent between 1900 and 1910.

The towns and native villages are located either on the coast or on the bank of a river. These settlements range from 40 to 3,500 people. Fifteen of the towns are incorporated and have a combined population of about 18,000. These towns have a mayor, council and other municipal officers provided by the Alaska Code.

The native population is distributed over Alaska as follows: The Indians are located in southeastern Alaska and on the upper Yukon river, and the Aleuts in the vicinity of Cook Inlet and the Aleutian Islands, while the Eskimos live on the lower Yukon river, the Kuskokwin river and along the coast of Bering Sea north of Point Barrow. With the exception of the incorporated villages, the enforcement of the registration of births and deaths in a country like Alaska, in which the population is scattered over a large territory in isolated districts, is rather difficult and unsatisfactory. The teachers in the Alaskan school service have been reporting monthly the births and deaths among the natives in their vicinity.

During the school year of 1913 the birth rate varied in different sections from 25 to 43 per thousand inhabitants, while the death rate was 19 to 36 per thousand. The birth rate exceeded the death rate in all districts with the exception of the southeastern, where the death rate exceeded the birth rate by six per thousand. These figures are compiled from data from fifty-two schools and are based on an approximate population of 7,118 natives.

Climate. The climate varies in different sections of Alaska from the temperate to the extremely frigid, as it does in the United States. The Japanese current has a great influence on the climate of the southern coast. The winters are mild, while the summers are quite warm; the rainfall in the southeastern section is heavy throughout the year—about 100 inches.

Farther west, in the vicinity of Cook Inlet, the precipitation is much less; the climate is drier, but the winters are colder. On Bering Sea it is comparatively dry. The summers are short and quite warm, but the winters are cold. The climate of the interior, on the Yukon river, is the driest in Alaska, and the range of temperature is the greatest. The winters are extremely cold, 70 degrees below Zero F., while the summers are short but hot. The summers are also very short on the Arctic coast and the winters long and very cold, but the temperature does not drop as low as it does in the interior and it is comparatively dry.

The region north of the coast and beyond the influence of the warm current is frozen during seven or eight months of the year.

Habitations. The style of homes in Alaska varies according to the climate and the material available for building purposes. There are practical-

ly no brick or stone buildings in the country. On the southern coast the houses are built of lumber or logs. Even the natives in Southeastern Alaska live in large frame houses. On the Yukon, where timber is plentiful and freight rates are prohibitive, the prevailing type of dwelling is the log house, which is well adapted to the climate of that section. The natives of Bristol Bay and the Kuskokwin live in sod houses, while along the lower Yukon, on Bering Sea and the Arctic coast, where no natural timber is to be had, driftwood supplies both fuel and building material. The homes are small and constructed of pieces of board, packing boxes, tin, tar paper and sod. As fuel is scarce these homes are small, usually having but one room. The whites live in frame or log houses, and as a general rule have better homes than the natives. The houses of the half-breeds are also an improvement over those occupied by the fullbloods. ,

Water Supply. The towns along the southern coast are usually supplied with excellent spring water, which is piped into the houses, while rain and seepage water is used by the natives in the villages. In Cook Inlet a number of settlements have shallow wells which are fairly well protected. On the Yukon, the river water is used for domestic purposes. In winter this is obtained from a hole in the ice. On the Bering Sea, both St. Michael and Nome are supplied with spring water, which is piped into town during four months of the year, while the remainder of the time it has to be hauled from these springs and distributed to the dwellings in buckets. Along the Arctic coast either rain or river water is used in the summer and melted snow or ice in the winter. In spite of the favorable conditions present for the contamination of the water supply, there are no water-borne diseases in Alaska. The few cases of typhoid that have been reported in the territory have been imported into the country from outside.

Disposal of Sewage and Garbage. As the settlements in Alaska are usually located on some body of water, the problem of drainage is a simple one. The larger towns on the southern coast are supplied with sewers which carry off excreta and other waste matter into the sea.

Garbage and refuse are disposed of by burning or dumping into the sea and are then carried off by the tide. On the Yukon in summer, garbage is usually emptied into the river at some distance below the town, and in winter is placed on the ice, where it remains until the breakup in summer, when it is carried out to sea. In communities not supplied with sewers, ordinary house drainage is disposed of by emptying on the ground or in pits, while human excreta is deposited in privies, the pail system being in use in the towns on Bering Sea.

In the native villages the methods vary in different sections. On the sea coast, garbage and rubbish are thrown into the sea, while in settlements located on rivers, they are thrown into the stream. During the winter months, the refuse is allowed to accumulate in the villages and is usually cleaned up in the spring and disposed of. This cleanup is generally forced upon the natives by the teachers of the school in the villages. In a few communities the natives have privies, which are not, however, constructed on

sanitary principles, but the majority of the settlements have no such provision, but deposits excreta promiscuously.

Disposal of Bodies.—The bodies of the dead are usually buried under ground both by whites and natives, but there are still a few communities in Alaska where they are left above ground and covered with stones and logs, or placed on a litter.

Morbidity. As a general rule, there is little sickness in Alaska, for the climate is conducive to healthfulness, and with the exception of diseases like pneumonia, rheumatism and tonsilitis, the white population is usually healthy. The natives, however, are afflicted with many ailments, which are chiefly the result of their unhygienic living and the lack of facilities for treatment, and isolation of the infected. Tuberculosis, eye affections and venereal diseases are the most important.

Other conditions found among the natives are heart disease, stomach trouble, adenoids, hysteria, locomotor ataxia, pleurisy, scabies, impetigo, lupus, rachitis, epilepsy, etc. Erysipelas, smallpox, measles, infantile paralysis and chickenpox occurred in epidemics. Influenza is endemic along the coast, occurring in the spring and fall. The case mortality among the natives in these epidemics has been exceedingly high.

It is interesting to note that the natives living in villages adjacent to white settlements are more diseased than those living in isolated districts.

Tuberculosis. Tuberculosis is comparatively rare among the whites, but in the natives it is present in all its forms and stages. The pulmonary form is most common among the Eskimos, while tuberculosis of the bone is most prevalent among the natives along the southern coast. The climate, type of dwelling and mode of living are directly responsible for the difference in various sections. In Southern Alaska the Indians live out of doors in camps a greater number of months in the year than the Eskimos of the north, who, for eight months are confined in small, crowded, unventilated, one-roomed homes, in which all crevices are sealed to keep out the cold. About fifteen per cent of the natives have tuberculosis in some form.

Syphilis in the Alaskan natives usually has ulcerative manifestations, and some of these cases have been erroneously diagnosed as leprosy.

Food Poisoning. Ptomaine poisoning has been reported to be common among the natives, and occasionally a case is reported among the whites. The condition is alleged to be especially common in the isolated districts in which large quantities of canned food is consumed. In some parts of the territory the natives eat fish heads which have been previously buried in the ground until they have undergone putrefaction. This dish they consider quite a delicacy. A great many cases are due to eating putrid moose meat.

Care of Premises. Although the premises in the native villages appear in disorder and unclean with cans, rags, animal matter and other refuse

scattered promiscuously, infection is not acquired through this medium. It is in the crowded, unventilated homes, where all eat out of the same dish, drink from the same teapot spout, use the same towel, and expectorate on the floor, that the principal danger of contagion exists and that tuberculosis and trachoma are most frequently contracted. The sanitary conditions in the white settlements and homes are usually better than those of the natives.

In the volcanic district many persons suffer from inflammations of the throat and eyelids, caused from the irritation from the floating dust. As a whole, the Alaskan country could be made the most healthful location in the world, under the proper sanitary conditions.

THE LOS ANGELES SALVARSAN CASES.

The press of the country was recently full of an account of seven fatalities following the intraspinal use of neosalvarsan, which the hospital authorities have taken the pains to accurately describe in a circular issued. It seems the technic followed was not that of Swift and Ellis, but consisted in withdrawing a certain amount of spinal fluid, centrifuging, the clear fluid drawn off, neosalvarsan added, then saline solution added, after which the preparation was placed in a water bath for one-half hour and from that into a refrigerator for twenty hours. The compound was used on seven patients next morning, all of whom died. It is stated that the diagnosis of syphilis of the nervous system had been previously made in each case by Wasserman and all other agencies usually used; that the preparation in every detail was accompanied by strict asepsis. No opinion is given as to the cause of the deaths except the possibility of oxidation having taken place in the drug.

This result is regrettable on its own account, but it is vastly regrettable on account of the attitude the unfortunate syphilitic may take hereafter when it is proposed to give him the drug in any form. The Swift-Ellis technic has never been followed by such disastrous results, on the contrary the results have been gratifying when the condition of the patients have been considered.



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Failure to receive the Journal should call for immediate notification of the editor, 507 Barnes Building, Muskogee, Okla.

Local news of possible interest to the medical profession, notes on removals, changes in address, deaths and weddings will be gratefully received.

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EDITORIAL

A CONTRAST—LAW VERSUS MEDICINE IN OKLAHOMA.

On Wednesday, March 4th, the new law building of Oklahoma University was dedicated with proper and imposing ceremonial at Norman. We congratulate the legal profession of the state and the students who will come with time to master the intricacies of the law in this imposing structure. The building is a classic and beautiful structure costing one hundred thousand dollars of the tax-payers money. In good faith we congratulate those responsible for this climax of effort and we believe we are joined by every thinking person that too much money can hardly be spent in improving educational conditions in Oklahoma, but we believe that it is not an impropriety in the midst of our congratulations to protest against an uneven distribution of benefits. It is admitted that there was a crying need for this building in which we all take pride, but we protest that its building at this time was an unwarranted expenditure of money in the face of pressing demands for its expenditure in other quarters and for the most pressing insistent needs of other institutions.

While each stone of this legal palace was being laid the tuberculous inmates of the state penitentiary at McAlester were housed in a tent, sur-

rounded by dust and blank walls. They are now so quartered and will be until a hospital is slowly and painfully erected for their accommodation. The Governor of Oklahoma asked that adequate accommodations be made for the inmates of the Granite Reformatory, insufferably crowded, sleeping in rows upon a raised platform. With many obsolete and unscientific surroundings, they must wait until long after each piece of tile and polished work is placed in the law building.

Throughout the United States there is a positive and pressing demand for improvement in Medical Education. It is demanded of us, in order to compete with other states and their institutions that our medical school be vastly improved. While we creep forward a few steps other state universities go far afield aided by years of tradition and state pride in achievement. Most state legislatures do not dole out with niggardly economy a pittance for the support of its medical department, but, realizing its great importance, accord it the same prominence as is given other departments. If Oklahoma is to have a medical department in its University every possible financial aid should be extended it in order to compensate for past neglect; each feature of medical education in that department should be carefully and fully provided for. The Carnegie Foundation, after a careful survey, very kindly criticised us and pointed out our needs. The Council on Medical Education of the A. M. A. has shown a generous leniency toward our medical department and has a disposition to give us every fair opportunity, taking into consideration our late entrance in the field as a political subdivision of the Union. The brunt of the contest to maintain this work and build it to greater proportions necessarily falls on the profession of Oklahoma City, but it is the duty of every physician in the state, who is more intimately interested than other classes of citizens, to give them every aid in building up the department and share a part of the burden. This may be effectually done by the physicians of each county demanding proper recognition of the needs from his representative. We send a new set of men to the legislature to act for us biennially. Many of these men never heard of a medical department in the University. Their ears, however, are acutely attuned to anything that may affect their political destinies, hence the universal and enthusiastic support of anything demanded by the agricultural element. Observers understand that thousands are annually wasted in misdirected effort looking to the benefit of the farmer, yet the smallest appropriation for medical education is only wrung from the lawmaker after weary argument and demonstration.

The budget of the University contains large items for many things educational, that may be said to be almost chimerical, insofar as any good results from them; certainly chimerical if they are contrasted with medical educational endeavor, yet the system of allotting a pound to one and a grain to the other continues. It is certainly up to the profession of Oklahoma to look into this and demand that a proportionate share of the appropriations be given the medical department. This infant of ours is lusty enough considering his opportunities and age, but we should not sit tamely by and allow him to starve from neglect. Illustrative of how things are

accomplished may be found in the statement that the statewide legal profession was behind the erection of the law building to a unit. Among them there was no snarl and snap for place on the faculty; no hospital had to be cared for in order to get its support and no legal clique had to be mollified with promise of place to quiet their opposition.

Again, in good faith and sincerity, we congratulate the lawyers, but we must insist that ours is of at least equal importance. We know it is of more importance, and we must be considered.

LITHIA WATER, ESPECIALLY THE BUFFALO TYPE.

Many physicians will remember the complacency with which they have ordered, and in some instances yet order, a case of Buffalo Lithia Water sent to their patients, hugging the delusion that the water supplied a need of lithia medication to the patient. The amount of this water sent to sufferers from nephritis and similar conditions would probably total into the millions. Recently the department of the United States Government inquiring into the claims of the distributors of this water, so it is authoritatively stated, ruled that the water was mislabeled or misbranded insofar as it was alleged to have any appreciable or therapeutic amount of lithia, and the contention of the company that it was labeled "Buffalo Lithia Springs Water" was also misleading in the same respect, as such a statement was contrary to fact in that the lithia content was practically nil.

It will be news to many of us, especially those of us who do not inquire deeply into the claims of a producer, to hear the statement of one of the well-known and skilled chemists of the country that this water contains nearly no lithia salts; that to receive a therapeutic dose of lithia it would be necessary for the patient to drink 125,000 gallons of this water daily, and that Potomac river water contains six times as much lithia as does Buffalo Lithia Water. The continued use of this water over a term of many years indicates that we are somewhat negligent as to an exact knowledge of the "drugs we use," and is another demonstration that the claims of the manufacturer are sometimes lightly made, as lightly accepted by us, and have no basis of fact behind them.

OUR ADVERTISERS.

We have had occasion heretofore to call attention of Oklahoma physicians who own the Journal to the justness of the expectation of reciprocity on their part toward those who support us by advertising. In our pages will be found the advertisement of sanitariums in different parts of the country, the reliability of which may not be truthfully questioned. If we have a patient requiring such institutional treatment as they offer, sending such a patient to some other sanitarium is not only an injustice to the advertiser, but a short-sighted business policy as well. Our pages contain the matter of producers of biological products of the highest class and perfection and second to none in the country. We should use those

products and none other. The pages contain the matter of advertisers of drugs and compounds of superior quality. If we are to spend our money for such products, patronize them.

The matter of unethical, low-grade and inferior producers is not carried in our pages. They have not enough money to buy our space. Every effort is made to keep our advertising pages as clean as the cleanest and it is the policy of your Council to maintain high-class advertising pages or none, so when you read an advertisement in your Journal you may be assured that the offering is ethical and reputable and that you have no good right to go elsewhere if they can serve your wants.

VACCINATION! WHAT'S THE USE?

The month of January showed the existence of a few cases of smallpox in Muskogee city and county; the months of February and March showed the expected increase, due to its existence in Tulsa and Sequoyah counties, which lie contiguous to Muskogee county, and are more or less directly connected by transportation lines making an intermingling of citizens of these counties almost a matter of course.

It is a remarkable fact that of the scores of cases not one caused death or a really serious illness. On the contrary whooping-cough exacted its toll; measles, typhoid, pneumonia and scarlet fever all exacted a damaging penalty. With a few exceptions this statement is only a repetition of the mildness of smallpox for the last sixteen years. With this mild exhibition, however, there has been hardly a comparative decrease in the fear of the disease or of measures for its control at the hands of health officers. We would expect that a disease that ranked as a nonentity, as a producer of grave symptoms both from the standpoint of mortality and severe morbidity, would at last come to be ignored by health authorities, but the fact remains that most of the agitation comes from physicians and not from an alarmed public who have come to regard the trouble as an insignificant matter not worthy of attempts at control. It is only further calling attention to the impracticability of control in noting that most cases of the mild type are not seen by any physician and are discovered accidentally in connection with other matters.

With such conditions prevailing it would seem to be the part of good sense to make no attempt to control the trouble beyond advising vaccination to those who complain of its existence and to those who are unvaccinated. In this connection it is interesting that in many cases where the disease existed in a family vaccination was refused by the responsible head of the family on the ground that the prophylaxis might be worse than the disease. With such conditions discovery and quarantine seem to be nearly impossible, so we reiterate so far as smallpox is concerned that the sensible thing to do would be to disregard it entirely. If a person complains to you simply tell him to vaccinate and go where he pleases, **unafraid.**

Another phase of the matter not considered is the unjust placing of the cost of quarantine—a matter of class expenditure only, when it is brought to an analysis. A citizen tax-payer vaccinates himself and family and is protected personally and is no longer a menace to the community. Is it right to call on him to pay the cost of quarantining some ignorant pauper or indigent who refuses even free vaccination in the face of the disease? An offer by the county and city authorities of Muskogee to vaccinate free any person who applied for the service who did not care to undergo the cost did not net a single response over a period of one month. The regular medical profession has been trying now for more than a hundred years since Jenner's discovery to induce the people to take the profession's view of this disease—be universally vaccinated and end the trouble—to no avail. Our propaganda is disputed by contentious organizations and sects and schools and our propositions given vicious misinterpretation. Why not let them have a try at handling the trouble? How much more sensible it would be than the present arrangement to simply say to our patients and friends: "You are almost certainly protected against this disease by vaccination; without it you run some risk of a mild infection, possibly a severe one. Take your choice; you are a free man, endowed with intelligence. I advise vaccination, but your constitutional right to make your own decision in the matter is undisputed. The constitution should give men the right to think for you when you have not intelligence to think yourself, but it does not. It has left the matter almost wholly to your deep wisdom. Take your choice; protect yourself if you want to; it is immaterial to us who are vaccinated what you do; you cannot give us the disease because we are vaccinated."

Just think of a severe epidemic striking the country shortly after this plan was generally adopted. You would immediately see the disciples of Mary Baker, G. E., and the rank and file of the anti-vaccination cult wending their way to the office of the much maligned physician and importuning him for a scratch of the "poison" they have so often criticised.

THE PHYSICIAN AND POLITICS—WHAT SHOULD BE OUR ATTITUDE?

Busy with the cares of every one except his own, is it any wonder that the physician as a political factor is not as effective as his education and intimate knowledge of the needs of the people demand he should be? In many European countries, it is said that the physician not only holds his own, but ranks high in shaping the political destinies of the people for whom he labors.

In the next few months Oklahoma will again have passed through the biennial throes of political contest. Shall we sit tamely down and allow our legislative body to be filled with the usual ill assortment of ignorant law-makers? Shall we stand aloof and allow it to be filled with men who look on every proposition from the profession as one sired by selfishness? Not considering the fact that our profession devotes more of its

energies to the relief of the helpless than any other, without hope of future reward, unless it is in the uncertain hereafter, are we not entitled to a hearing on the grounds that we are simply voters and tax-payers? We believe we are. But we sadly err if we think that propositions confronting the law-makers are reasoned out on their merits alone. The writer knows that the men behind the measure are of more importance to its success than any possible merit it may have intrinsically. Three-fourths of the proposals for betterment from the profession have as a basis, altruism of the purest sort, yet they are held up as the efforts of a "trust" to further its own interests and the real merit is not even looked into.

We will now soon have our day in court, and that day will be in the primary elections of Oklahoma. A few votes marshaled here and there by honest, intelligent physicians will do more to get good men in office and keep the bad out than all our efforts after they are nominated and elected, and we are derelict to our plain duty if we do not assert ourselves and demand that our nominees represent the best interests of humanity by carefully considering and acting on our proposals after they are in office. The unions do not wait for a man to be elected to see where he stands. They invite his expressions on legislation they believe for their personal interests alone long before they stamp him with a "fair" label; we have that same right, and as educated men, freely mingling with the people daily and knowing their needs, we should take some concerted action.

It should not be urged that these men agree to support our pet theory as to legislation with respect to increased medical examination requirement. It is positively beyond their ken to fathom such intricate matters, but they should know enough to know desirable legislation looking to the betterment of the human family, the protection of the lives and happiness of our indigents, the delivery of pure food and pure milk to helpless infants, the protection of water supplies by more specific legislation, etc. You, reader, would be amazed to know what actuates some of our budding statesmen on their votes on matters that appear as plain as day to you.

Every county society should appoint a strong legislative committee and if possible give their undivided support to honest, intelligent men. The last qualification is added for the reason that an honest man may not necessarily have sense enough to know what to do, is often easily misled, and by his honesty of purpose, though misdirected, may become more of a menace to the people than a known political crook.

NEW AND NON-OFFICIAL REMEDIES FOR 1914.

The Journal is in receipt of New and Nonofficial Remedies for 1914, issued under the direction of the Council on Pharmacy and Chemistry of the A. M. A. To those having the book all supplements for 1914 hereafter issued will be sent free. The great importance of this book to the

busy physician cannot be estimated. A perusal of its pages, as well as the Propaganda for Reform issued by the A. M. A., which deals with fraudulent propositions, patented fakes, misleading and unreliable statements of manufacturers and purveyors, will convince many of us that "we know not what we do" when we blindly prescribe a preparation on the advice of the detail man or on the advice of the mail department of many manufacturers, who are constantly flooding our offices with their preparations and literature. To the physician who is busy doing a general practice, it may be truly said that one of the greatest menaces to him and to his patients is the "Clinical Report," "Report of Cases," "My Experience With So and So," "What the Physicians Say About Our Preparation," "Brilliant Results," etc., sent out under the name of obscure, non-scientific physicians.

This can be no better substantiated than by reading a folder recently issued by the manufacturers of that new and modern fake, "Sanatogen," under the title "Opinions of Members of the American Medical Association on Sanatogen." Notwithstanding the fact that it has been shown to be a dishonest preparation by unbiased investigators, in that it claims a superiority over the same product in a vastly cheaper form, the manufacturers have the temerity to issue to physicians a lot of unsigned testimonials testifying to the greatness of their product.

PERSONAL AND GENERAL NEWS

Dr. L. H. Hilsmeier of Weleetka has moved to Elgin.

Dr. L. T. Strother, Nowata, spent February in the Chicago clinics.

Dr. E. G. Earnhart, Oklahoma City, recently visited the New Orleans clinics.

Dr. Newton Rector, Hennessey, has returned to that place and will resume the practice of medicine.

Dr. C. S. Wilkerson of Sherman, Texas, has returned to Roff, where he will take up his old practice.

Dr. McClain Rogers, Clinton, has formally opened his hospital to the public.

Dr. A. B. Cullum, Hennessey, has remodeled his old office location, with additional space which he will use as a sanitarium.

Dr. J. P. Powell has moved from Cestos to Vici.

Dr. J. B. Ferguson of Muskogee has removed to his old location, Sallisaw, Okla.

Dr. Carl Puckett, Pryor, recently resigned as physician to the Pryor State Orphans' Home. The resignation is said to be due to friction and internal dissension at the Home. A number of teachers and other employees resigned at the time.

Dr. F. R. Deans has moved from Miami to Lindstrom, Montana.

Dr. J. H. Hansen of Granfield has moved to Devol.

Dr. R. M. Counterman, Stigler, was recently thrown from his buggy and painfully injured. The team he was driving became frightened at an automobile.

Dr. A. A. Will, Oklahoma City, had a very narrow escape from death when his machine was backed into by a freight train. Dr. Will was not injured, but his machine was ruined.

Dr. L. M. Martin, Newkirk, recently sustained a fracture of the scapula, due to the steering gear of his car breaking and the machine turning over.

Dr. F. R. Sutton, Bartlesville, is the last member of the statewide profession to answer in court on a malpractice charge. After introduction of his evidence the plaintiff asked that the case be dismissed. They had no case—the usual story.

Drs. F. B. Fite and C. A. Thompson, Muskogee, attended the Chicago meetings in February of the Council on Medical Education and Medical Legislation and the State Secretaries and Editors organizations.

Dr. G. W. Blake, Tahlequah, recently suffered an irreparable loss in the death of his wife and only surviving son, Dr. Edward W. Blake. Mrs. Blake was not considered seriously ill until a short time before her death, which occurrence, coupled with years of ill health on the part of Dr. Edward W. Blake, caused his death. Dr. and Mrs. Blake have lived in Eastern Oklahoma for more than thirty years, he probably being the oldest living practitioner of medicine in this portion. Their home has ever been one of good cheer and hospitality to a large circle of friends, who extend to Dr. Blake their sincere sympathy in this hour of extreme affliction.

Muskogee City Hospital is undergoing reorganization as to management and policy. Recently it was determined by the City Commissioners and Mayor that the hospital would be closed and a proposition to operate it for the benefit of the city was made by a number of physicians under the authority of a new organization to be known as the Physicians and Surgeons Hospital Association of Muskogee, the organization to assume liability for deficits in operation, if any, and agreeing to place all profits to hospital betterment and equipment. The hospital has been a source of dissatisfaction since its erection, evidencing the impossibility of the success of political management of such institutions.

Dr George Hunter, city physician of Oklahoma City, has been made the defendant in a civil suit for damages. It is alleged that he made an examination of a female prisoner against her will, and the suit is the result. The allegations were promptly denied by the chief of police, who was present and ordered the examination, which he states was agreed to in advance by the prisoner.

The University Hospital, Oklahoma City, has been ordered "open" to all reputable members of the medical profession. For some time this institution has been limiting its work to those on the staff and we will now have a tryout of a new system, which is the result of agitation over a considerable time. It is doubtful if this change will result in any particular good to the medical student. It will give him such a wide diversity of work to look upon that he will likely be uncertain which he should emulate.

Dr. A. E. Davenport, county superintendent of health for Oklahoma county, has been sued by the county attorney for back salary paid him, which it is alleged by the county was wrongfully paid. Dr. Davenport has had the misfortune to be constantly attacked by a hostile county administration for the past two years and it will probably be a good thing for all concerned to have the matter judicially settled.

Dr. J. E. Webb, for several years city physician of Tulsa, has been appointed to fill the vacancy caused by the resignation of City Superintendent of Health, Dr. D. U. Wadsworth.

Dr. H. K. Speed, Sayre, has been appointed an alderman in that town to fill an existing vacancy.

Drs. R. A. Workman, Philip Herod and E. C. Ludlum were appointed by the Governor to inquire into the water and sanitary conditions of the Supply Hospital for the Insane.

Dr. J. J. Williams of Weatherford was recently the victim of an unusual accident. While filling his car tank with gasoline, he noticed a small flame about the opening, and throwing the funnel from his hands lighted his clothing and he was painfully though not seriously burned. The cause of the accident is wholly unknown. The car had not been used for some time and there was no fire about it at the time.

Dr. W. A. Jolly, Oklahoma City, before his removal to Tampa, Fla., was tendered a farewell reception at the Masonic Temple by the various bodies of that order with which Dr. Jolly has for a number of years been enthusiastically affiliated. During his residence in Oklahoma City, Dr. Jolly has been a consistent Mason and has given the order a great deal of his time and has filled many important positions in the order.

Enid School for Feeble Minded Children is given a very clean bill of health by Miss Kate Barnard, Commissioner of Charities and Corrections. Miss Barnard, in an interview, states that the institution is in excellent condition and compliments Dr. Kendall, the superintendent, highly on his management.

Dr. Gardner Applewhite, for some time located in Muskogee, has returned to his old home, Tecumseh.

Dr. D. D. Howell, of Nowata, who contemplated building a one-story apartment in his city, offered Nowata the use of the upper portion if the citizens would build and equip it for a Y. M. C. A. building. The offer carried with it a deed in perpetuity to that part of the property.

Dr. F. H. Racer, Chief Surgeon, Oklahoma National Guard, Woodward, has organized a regimental hospital corps for the First Oklahoma Infantry and secured temporary quarters for an armory in Woodward; announcing their intention to soon give a benefit performance in a local theater to raise funds for further necessities for the armory.

NURSES NEEDED IN EASTERN OKLAHOMA.

There has never been such an unprecedented demand for nurses in towns of Eastern Oklahoma as there has been during the last four months. It is impossible to say just how long this demand will last. It is probable that the need is due to the fact that physicians and patients are constantly demanding more careful attention than before. The towns of Tulsa, Okmulgee, Muskogee, Henryetta, Nowata and the newer towns along the M., O. and G. Railroad, have all been short most of the time and great difficulty has been experienced in partially filling the needs of the sick.

CONSTITUENT AND ALLIED SOCIETIES.

Lincoln County Society elected:..President, C. M. Morgan, Chandler; vice president, H. M. Williams, Wellston; secretary-treasurer, F. B. Erwin, Wellston; delegate, A. M. Marshall, Lincoln.

Pontotoc County elected: President, S. M. Richey, Francis; vice president, C. H. Orr, Roff; secretary-treasurer, I. L. Cummings, Ada; delegates, W. D. Faust and I. L. Cummings, Ada. A number of committees were appointed to serve for the ensuing year.

Muskogee County held a bi-weekly meeting February 23. Dr. J. A. Dial read a paper on "Diphtheria and Diphtheritic Paralysis." Dr. C. W. Heitzman on "The Diagnostic Importance of the Cerebro-spinal Fluid." Dr. F. L. Walton made a case report; Dr. J. S. Vittum a paper.

Craig County held a meeting February 3rd, with the following program: Dr. W. Jackson, "Charcot's Joint;" Dr. C. S. Neer, "Prolapse of Portions of the Brain in Head Injuries;" Dr. Marks on "Sanitary Conditions in Alaska."

Adair County elected: President, D. A. Beard, Westville; vice president, P. C. Woodruff, Stilwell; secretary-treasurer, C. M. Robison, Stilwell.

Pottawatomie County elected the following officers: President, J. E. Hughes, Shawnee; vice presidents, G. S. Baxter, Shawnee, and E. J. Gray, Tecumseh; H. M. Reeder, Asher; secretary-treasurer, W. C. Bradford, Shawnee; corresponding secretary, C. Farrington, Shawnee; Censor, R. M. Anderson, Shawnee.

Woodward County elected: President, F. L. Patterson, Fargo; secretary-treasurer, J. J. Davis, Woodward; delegate, O. A. Pierson, Woodward; censor, P. G. Eilers, Quinland.

Haskell County met at Stigler March 5th. Program: "Diphtheria," T. B. McClure; "Smallpox," M. Van Matre; "Regarding the Physician's Duty to Himself, His Profession and to the Laity," J. Culbertson.

Cleveland County believes that society membership is worthy of notice to the general public, and as a consequence recently voted to publish all the names of its membership in their local papers.

Mayes County held a meeting March 3rd, with the following program: "Fractures," Carl Puckett, Pryor; "Gynecology," W. D. Hill, Choteau; "Influenza," G. W. Tilly, Pryor; "Typhoid Vaccine," J. E. Hollingsworth, Salina; "Hyperchlorhydria," E. A. Donovan, Salina; "Ophthalmia Neonatorum," E. L. Pierce, Salina; "Summer Complaint in Children," C. S. Branson, Locust Grove; a paper by C. L. White, Adair; "Broncho-pneumonia in Children," J. L. Mitchell, Pryor; a surgical paper by W. T. Tilly, Muskogee, and one on "Medical Jurisprudence" by an ex-physician and present county judge of Mayes county, Dr. J. E. Bristow.

Ottawa County held a meeting during February with the following program: "Neuritis," A. M. Cooter; "The Use of Local Anesthetics," Dr. Cully. This society went on record as unanimously favoring the creation of a medical defense bureau in the State Association.

Northeast Medical Society (6th District Society) held its annual meeting February 20th at Nowata. Among the papers read and discussed were the following: "Relation of Internist to Surgeon," by the retiring president, G. H. Butler, Tulsa; "Some Unusual Experiences in a Professional Career," Wm. Narin, Nowata; "Gastric Ulcer," G. A. Wall, Bartlesville; "The Diagnosis of Cirrhosis of the Liver," R. E. Pryor, Bartlesville. The officers elected were: President, L. T. Strother, Nowata; vice presidents, J. R. Collins, Nowata, and C. W. Beeson, Claremore; secretary, J. V. Athey, Bartlesville; treasurer, Wm. Narin, Nowata; censors, J. W. Pollard, G. A. Wall, Bartlesville, and J. P. Sudderth, Nowata. One of the local papers stated that if the patients of the participating physicians could have seen the wide variety of the luncheon stowed away by the medical profession that day, that "never again" would be the motto of those patients when the question of being put on a diet was broached. All in all the Nowata profession did themselves proud and the visiting physicians went away with a very good feeling toward their entertainers.

Latimer County Medical Society elected officers March 9th as follows: President, H. L. Dalby; vice president, W. H. Horine; secretary-treasurer, T. L. Henry; censor, E. B. Hamilton, all of Wilburton.

St. Anthony's Hospital Clinical Society, Oklahoma City, elected: President, J. S. Hartford; vice president, L. M. Westfall; secretary-treasurer, L. J. Moorman; custodian, Lucy E. McGuire.

Rogers County elected J. C. Bushyhead, president, Claremore; H. L. Illie, vice president, Collinsville; W. A. Howard, secretary-treasurer, Chelsea; censors, E. Y. Bass, Talala, W. F. Hays, Claremore; J. M. Stemmons, Oologah; delegate, W. A. Howard, Chelsea.

Seventh District Councillor Society will hold a quarterly meeting in Muskogee, April 28th. The complete program at time of going to press was not available, but those offered at that time were: "Chronic Gastritis," by J. W. Ousley, Kansas City, Mo.; "Local Anesthesia," by Leigh F. Watson, Oklahoma City.

**PROCEEDINGS OF THE CLINICAL SOCIETY OF ST. ANTHONY'S
HOSPITAL, OKLAHOMA CITY, OKLA., FEBRUARY, 1914.**

J. S. Hartford, President; L. J. Moorman, Secretary.

PATHOLOGICAL FRACTURE OF TIBIA.

By Dr. J. S. Hartford.

D. V.—Age 9 months; normal birth at full time. First child; breast fed; well nourished. Has never been sick except a number of times had acute coryza. Has had at different times enlargements of the post cervical glands. Weight at birth 5 pounds. Present weight 27 pounds.

Mother, age 22. At 16 had typhoid fever. Since that time has had dysmenorrhea and leukorrhea. Married two years.

Father, age 22. History negative except January 12, 1914, operated for acute appendicitis. At that time had a specific urethritis.

On the evening of January 19, 1914, while in the cradle, the child began screaming and mother was unable to discover any injury as reason for the pain. Later in the night it was discovered that the right leg below the knee was inflamed and swollen. We saw the child the following morning. The leg was greatly swollen and skin was inflamed; no evidence or history of trauma.

Child was not suffering so much pain. No temperature. Pulse accelerated. Leg was put up in a very heavy boric alcohol dressing. Two days later swelling and inflammation reduced, ecchymosis of ankle joint, fracture suspected and verified by X-ray. Tibia being fractured at junction lower and middle third. A careful and thorough inquiry from family could not elicit any history of injury.

In presenting this case we do it because it is unusual, interesting and determining the etiology of the bone disease that caused the fracture means so much to the future of the child.

The X-ray picture shows enlarged and curved tibia with nodular area under periosteum and one tooth-like projection from the epiphys's. No. 1 shows fracture at time of injury. No. 2 shows bones uniting at end of three weeks.

Wasserman was negative both on mother and baby. Luetin test put on three days ago is now showing positive on baby and fairly positive on mother. Father not tested.

We have thought of four conditions that might be considered in the discussion of this case.

Rickets—Means deficiency of calcium constituents of bone.

Thickening of epiphyseal extremity long and flat bones with stunting of growth and usually is multiple. This child does not look like a rachitic child.

Acute Osteo Myelitis. Infection bone marrow by staphylococcus, pyocyaneus bacillus, typhoid bacillus, streptococcus and pneumococcus. May follow injuries. Begins in diaphysis as a rule; tibia and femur most affected. Pain and high fever, rapid development to abscess formation. This child did not run this course.

Bone Tuberculosis. Infection gains entrance through blood stream to bone marrow. Foci nearly always begins in the epiphysis and extends to the joint. Onset slow and progress slow. We exclude tuberculosis by the history of case.

We believe this to be a case of bone trouble due to congenital syphilis and base our diagnosis on the positive Luetin test in child and mother, and to the characteristic bone lesion as revealed by the X-ray, namely, tooth-like projections from epiphyseal line into diaphysis, long curve of bone, with thickening of entire bone and formation of new periosteal bone.

This disease may develop in the bone in different forms. May be enlargement or separation of the epiphysis. May be proliferation of endosteum with or without thickening of periosteum. Usually, however, in these cases there is endosteal and periosteal thickening.

The bone may be sclerotic or there may be gummata which forms necrotic areas which resemble tubercular bone. This child does not show other evidence of Leutic infection except enlargement of post-cervical glands, snuffles and some irregularity in parietal bones.

Hyperchlorhydria.

By Dr. Lea A. Riley.

Mr. H. S. T., 20 years, 125 pounds, 6 feet, stenographer for five years. Neurotic family history, having either convulsive ties, neurasthenia or insomnia. Youngest child; usual disease of childhood; typhoid at 12 years, lasting five weeks. Has always been bothered with stomach; constipated, cold, clammy feet and hands; distention of stomach and intestines; great number of subjective symptoms referable to heart; extreme prostration comes on after drinking water and made worse by going to health resorts. No nausea or vomiting; discomfort no more on full than an empty stomach; tongue clean. Temperature 97 4-5 (3 p. m.); muddy complexion, rounded shoulders, general muscular weakness, insomnia. Mucus only pathological element in stools. Urine normal, lungs normal, slight mitral heart murmur, blood tension 125. Motor function of stomach good; lower edge one finger's breadth above umbilicus. Ewald breakfast after one hour was about 100 c. c., well divided.

C. H. A. 114	T. A.	116	Free H. C. A. 78	(12-30-13)
C. H. A. 106	T. A.	94	Free H. C. A. 66	(1- 8-14)
C. H. A. 34	T. A.	66	Free H. C. A. 26	(2-16-14)

Hyperaesthesia over spine, but patella tendon triceps and pupillary reflexes normal.

This must certainly be a case of hyperchlorhydria due to neurotic origin. No evidence of either ulcer, chronic appendicitis, gall bladder or other trouble which would give it a surgical aspect, however, the muddy skin gives evidence of improper gastro-intestinal drainage. Most surgeons think there is a surgical condition lurking in the background of even hyperacidity.

Put patient to bed with proper surroundings. Gave milk of magnesia to counteract the acidity and relieve the pains; gave atropine in sufficient amount to further relax the pylorus and diminish the quantity of acid in secretions and gave diet to combine with the excess acid. Found cream was most satisfactory at first, adding spinach and lettuce to give variety. Later gave the albuminates, which seemed to have acted better and his clinical symptoms have relieved, as the test meal indicates.

STATE BOARD OF MEDICAL EXAMINERS.

Report of Examination for License to Practice Medicine, held by the Oklahoma State Board of Medical Examiners at Oklahoma City, January 13-14, 1914:

Paul Newman Atkins, Tulsa, Okla., Georgetown Univ., 1912.....	87
Noble E. Melencamp, Topeka, Kans., St. Louis Univ., 1913.....	83
Chas. Lee McCann, Ardmore, Okla., Baltimore P. & S., 1887.....	75
True S. Burgess, Russellville, Ark., Geo. Washington Univ., 1912.....	87
Sidney Louis Mann, McAlester, Okla., Loyola Univ., 1913.....	82

The following applicants failed:

Little Rock, P. & S., 1910.....	64
Vanderbilt, 1893	65
Univ. of Arkansas, 1911.....	70

The following applicants were licensed by reciprocity:

Chas. S. Means, Jenny Lind, Ark., Univ. Arkansas, 1909.....	Ark.
James S. McKown, Osceola, Tex., Vanderbilt, 1886.....	Tex.
Napoleon R. Hosey, Coldwater Miss., Memphis Hosp. M. C., 1909.....	Miss.
Sidney B. Williams, Salisbury, Mo., Am. S. of Osteo., 1912.....	Mo.
Albert Chas. Daves, Dalton, Ga., Chattanooga M. C., 1910.....	Tenn.
Wm. Robt. Kelly, Vaiden, Miss, Univ. of South, 1906.....	Miss.
Hugh N. Bussey, Thomason, Ga., Univ. of Ga., 1908.....	Ga.
Francis M. Wilks, Highfill, Ark., Epworth Univ., 1910.....	Ark.
Herman H. James Parkersburg, W. Va., Howard Univ., 1912.....	W. Va.
Paul G. Eilers, Quinlin, Okla., Univ. of Iowa, 1900.....	N. Mex.
Karl Bernard Ford, Roosevelt, Okla., Central Col. P. & S., 1904.....	Ind.
M. R. McCroskie, Locksburg, Ark., Kansas City Electric Med. Col., 1911.....	Ark.

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APPRECIATION OF THE TELEPHONE.

Tinkle, tinklè, little bell—
 How I wish you safe in h—l!
 Central on the job all night,
 Doctor sleeping sound and tight.
 “Baby’s got the stomach ache,”
 Mama shaking like a quake;
 Papa running here and there,
 Barks his shins upon a chair!
 Doctor scooting through the air;
 Lights go out; gas all gone;
 Motor dead a mile from home;
 Doctor cussing like a fiend
 Baby, motor, gasoline!!

(He arrives.)

Baby sleeping in his bed;
 Papa’s arm round mama’s head.
 Nothing happened after all!
 Doctor on a useless call!
 Tinkle, tinkle, little bell!
 I don’t hear you. Go to h—l!

—Robert B. Dempsey, California St. Jour. of Med.

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THE GUTHRIE MEETING, MAY 12-14, COMMITTEES.**Committee on Arrangements**

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Committee on Entertainment

E. O. Barker, Chairman; W. W. Rucks, J. L. Melvin and W. E. Stewart.

Committee on Reception

J. L. Houseworth, Chairman; L. A. Hahn, L. A. Newton, C. F. Cotteral, C. B. Barker and F. Y. Cronk.

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W. E. Wright, Tulsa, 1914-15.

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J. Q. Newell, Oklahoma City, 1913-14.

C. R. Day, Security Building, Oklahoma City, 1913.

John W. Duke, Guthrie, Oklahoma, 1913-14-15.

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J. B. Smith, Durant, for three years, 1912-13-14.

A. D. Young, Oklahoma City, for two years, 1912-13.

Geo. A. Boyle, Enid, for one year, 1912.

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Next meeting Oklahoma City, April 14, 15, 16, 1914.

Address all communications to the Secretary, Dr. J. W. Duke.

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No. 12

DR. CLAUDE A. THOMPSON, EDITOR-IN-CHIEF.

UNUSUAL CASES AND INCIDENTS OF A PROFESSIONAL CAREER.*

By Dr. Wm. Nairn, Nowata, Oklahoma.

Gentlemen: I propose taking a brief retrospect—a look backward—over a professional career of forty-three years to call your attention to a few cases out of the ordinary. The great majority of cases that I have seen are such as every doctor sees time and again—sees so often that they are stale—and a repetition of them would not be of interest or profit. But every doctor occasionally meets with a case that is unique, out of the ordinary, a case the like of which he will probably see but once in a lifetime, and it is of this class of cases that this paper is made up.

A year or two after I began the practice of medicine, in the fall of the year 1871, to be specific, I was in partnership with my preceptor. We were located in a preeminently malarial country, in what is known as the peninsular county of Illinois, near the junction of the Illinois and Mississippi rivers.

Diseases of a malarial character were exceptionally rife and we were on the go night and day. Returning one night from a call, we were overtaken by a rain, wind and electrical storm, the most severe in all my experience. In fact, we were compelled to dismount from our horses and take refuge in a thicket till the fury of the storm abated. While there and during the most intense and violent lightning I ever saw or wish to see, and the most terrific thunder I ever heard or wish to hear, we experienced in an unprecedented degree the pungent odor of ozone, as is experienced in the laboratory when ozone is being generated, though in a much more marked degree.

It was so strong in fact that it irritated our eyes, mouths and nostrils. Even the laity that were aroused from their slumbers by the intensity of the storm noticed it and talked about it next day, though of course they did not know what it was. We both remarked its peculiarly

* (Abstracted rendition) Read before the Northeast Oklahoma District Medical Society, Nowata, February 20, 1914.

strong and pungent odor and referred to it as a product of nature's laboratory.

The doctor remarked: "We are very busy now, but in ten days we won't have a case." I asked his reason for his belief. He said in explanation that the great amount of electricity as shown by the great amount of lightning we had witnessed, and the unprecedented amount of ozone that had been generated and set free would so purify the air that malarial diseases would disappear. And what is remarkable, the prediction came true. Within ten days we were idle—nothing doing.

In the light of the theories that then prevailed as to the cause of those fevers, their rapid disappearance in connection with the circumstances just detailed was not so remarkable and was explainable. Those of you whose memories go back to the time of which I speak or who are familiar with the medical literature of that day, will remember that intermittent and remittent fevers were supposed to be due to vitiated air. In fact, the term malaria means bad air. Those days if a doctor met with intractable cases of periodical fever, they recommended a change of air—a trip to the mountains. It was all a question of purity of air.

But I will do the doctors of that day the justice to say, even though they were crude in their ideas of etiology in comparison with the knowledge of today, that they never depended entirely on "hot air" for the cure of disease, as some do that practice the healing art at this day, for example, the New Thought, Emanuel Movement, Suggestion, Christian Science, Osteopathy, Chiropractic, and kindred humbugs.

But in the light of the modern view of the cause of malarial fevers, namely, the plasmodium malaria with the mosquito as an intermediary, the abrupt cessation of these fevers after the electrical storm is without explanation so far as I know. Whether the electricity had a direct malign influence on the cause of the disease, or whether indirectly through the generation of ozone, or whether through a remedial agent evolved through the chemistry of nature that I know not of, or whether the disease, like everything else, was destined to come to an end, is to me unknown. But certain it is there was an abrupt, almost instantaneous disappearance of periodical diseases in that locality and they did not return that year.

My preceptor and I contemplated for a time having ozone tested for the cure of intermittents, but as we soon moved to where those diseases did not prevail, namely, Western Kansas, the idea was lost sight of and I do not know whether ozone has any curative properties in intermittent and remittent fevers. Perhaps not, or some one ere this would have discovered the fact.

A case that savors of the occult, the mysterious, is next in order. I stated in a former part of this paper that before I began the practice of medicine I helped run a threshing machine. One of the owners of the machine was a man by the name of Abel Harrell, a progressive, hustling farmer whose ruling passion was hard work. You could not keep him idle. The principle reason he invested in the machine was that he might always have employment. He was singularly free from superstition,

bigotry and cant. When a question of the hereafter, or of the occult, was broached in his presence, he would say that they were too heavy for him to handle, that in a few short years he would know the truth about such questions, and that it was not worth while for him to concern himself with them during this life. A fairer man I never had dealings with.

Not long after I began the practice of medicine I was called to see him in consultation with Dr. Andrews, an old-time eclectic doctor, for many years the family physician. When I reached his residence, the first thing I observed was Doctor Andrews and Mr. Harrell sitting on the porch engaged in jocular conversation. When I reached the porch I asked: "What is the trouble, Able?" He replied: "No trouble at all; the women folks got scared."

Dr. Andrews said: "You will not go till after dinner; we may as well feed your horse." We led the horse to the barn, where the doctor detailed minutely the history of the case as he got it from our patient and his family, which was that he arose early that morning, as was his custom, and went out to do his chores. By the time he finished, his wife and daughter had breakfast ready. At the breakfast table all of his family noticed that he was glum and moody, which was wholly foreign to his nature. They asked if he was sick, or in trouble. He said: "No, I never felt better in my life." After a time he said: "I may as well tell you—an angel visited me last night and had quite a long conversation with me, and told me to arrange my earthly affairs, for that in one week he would call for me and take me home."

We tried to make him believe it was a mental delusion and that he should pay no attention to it. He said it was no delusion, that he talked to the angel as truly as he was talking to us. He began at once to settle his business affairs. He paid his debts, collected his dues and made his will.

One week from that time I was asked to remain over night with him. When I reached his residence, Doctor Andrews was there, but before bedtime he was called away to attend a woman in confinement. About one o'clock that night he took with a severe pain in the little finger of his left hand, which rapidly extended to his wrist, arm, shoulder, left side of his body, ending in paralysis of those parts, and in spite of all we could do he died before daylight.

It has always been a question in my mind whether there was a connection between his dream—if it was a dream—and death, or whether it was a coincidence, there being no causative relation between the two. I never could satisfactorily account, even in my own mind, as to the true pathological condition, if the condition were pathological. In fact, the case has to me always been shrouded in mystery, and positive knowledge is out of the question.

I once narrated the case to Dr. A. J. Lane, an old-time Indian Territory physician. He at once said that it was a cerebral lesion from beginning to end. And it appeared to me he was essentially correct, though as I said before accurate knowledge is out of the question.

The next case in the order of time was a case of insanity, in which a doctor, a preacher, and an insane man were the leading characters. At the beginning of the Civil War a man by the name of Levi Jordan came to our neighborhood from Texas. He said he was a Union man, a follower of General Jackson and Sam Houston; that he had opposed secession, and for those reasons was compelled to leave the South. Being a good workman, he found ready employment and made my older brother's house his home. At times he acted odd, but never had, up to the time of which I speak, appeared seriously off. Not a great while after I began to practice medicine, I received an urgent call to visit Mr. Jordan, who was represented to be in a dangerous condition. My brother's wife was a zealous church member—an old-style Methodist—and when anything out of the ordinary occurred, her first thought was prayer. She requested me through the messenger that came after me to call and get the Methodist minister and bring him along. I did as requested; we made good time and were soon on the scene of action.

We soon learned that our patient had been violently insane for twenty-four hours, that he would not eat, drink nor sleep and that they could not do anything with him. As he appeared to be under great nervous strain and mental excitement, I at once made preparation to give him a dose of morphine hypodermically. Hypodermic tablets were not in use then, in fact, there were no tablets of any kind, but there was a solution of morphine on the market known as Majendies solution, so many minims to a dose, and of this I gave him a dose hypodermically.

The preacher was not idle. He questioned our patient as to his spiritual state and asked him if he wished him to pray for him. Mr. Jordan replied: "O yes, Brother Smith, for I am dangling over the lurid gulf of hell with only one feeble strand holding, and if that breaks I am lost forever." Preacher Smith was an old-style Methodist, and he did not believe people were really praying unless they got on their knees. He therefore requested us all to kneel. The preacher, Jordan, my sister-in-law, the hired man and woman, all got on their knees in a row. I hunkered down, though a little out of line, but in a favorable position to observe what took place. As soon as all had knelt down, the preacher requested everybody to pray. The preacher's and my sister-in-law's prayers were along conventional lines and their repetition here, even if I were able, would not be of special interest; but Jordan's prayer was unique, out of the ordinary, and as it is of extraordinary cases we are considering, its reproduction may not be out of place. As soon as he got on his knees and the word was given, he said: "Fellow man, Fellow brute, Brother Smith, Brother brute, Sister Nairn, Sister brute—yea, those are the terms, I am dangling over the bottomless pit, the lurid gulf of hell, with only one feeble strand holding, and if that is severed I am lost forever. Fellow brutes, pray for me."

At this stage of the proceedings the family cat stole up and began eating the lunch that had been brought out for Jordan. We were all in the yard under shade trees. Seeing the cat eating his lunch he ceased his supplications, got up and gave the cat a vicious slap, and began to eat—some-

thing he had not done for twenty-four hours. The preacher and my sister-in-law continued their devotions as if nothing had happened.

When the preacher had concluded his prayer and saw our patient complacently eating his lunch, he said: "How do you feel, Brother Jordan?" "First rate, Brother Smith," replied Jordan. "Brother Jordan," said the preacher, "how would you like to go home with me?" "Very much, Brother Smith," replied Jordan. After a few preliminaries were arranged, we all three got in my buggy (I was not so large then as now) and I drove to the preacher's house, where I left them.

Mr. Jordan remained rational for several days, but whether his becoming so—whether his sudden return from insanity to sanity was due to prayer, morphine, or to other causes, I cannot say. During the time he was rational he talked freely about his past life, his family history, his marital trouble, subjects he had never hinted at before though he had been among us several years. He told us that he had a son living in Texas at the time he left there, though he had not heard from him for several years. He was communicated with and came and took his father back to Texas with him. He kept us informed as to his father's condition to the time of his death, which occurred about a year afterwards. He was irrational at times until he died.

The next case out of the ordinary that came under my observation was a case of intoxication and near-drowning, and the victim was a woman. There lived in our neighborhood in Illinois a man and his wife by the name of Jesse and Jane Foval. They were well-to-do people, each owning several fertile farms, good stock and both had a comfortable bank account. They kept their property interests separate and each managed their own affairs. They were in many respects good people, honest, industrious, truthful, but rather turbulent and ever ready for a scrap with anyone, especially with one another. Previous to the time of which I write I attended them as a result of a fight in which the husband had used a blacksnake whip and the wife a butcher knife, in which both were severely injured. They both had an inordinate desire for the cup that inebriates as well as cheers.

My uncle had improved a quarter section of land to a high state of cultivation. He had a fine orchard, a magnificent vineyard, and had built what was considered the best dwelling house in the county. But in doing so he had become greatly involved in debt, and as too many of his obligations matured at the same time, and as his creditors were inexorable, he was forced to pay the price of financial delinquency and go to the wall. His farm, orchard, vineyard and home were all sold under foreclosure of mortgage, and Jesse and Jane Foval, heretofore spoken of, were purchasers. They immediately took possession of the premises. The cellar under the summer kitchen let in much water and at the time of which I speak was about half full of water. A few heavy articles, among which was a barrel of vinegar, had been left in the cellar and had been raised above the water on scaffolds. There was a plank walk to the vinegar barrel which a person by being careful could walk without getting wet. On one occasion at din-

ner it was noticed there was no vinegar on the table, and Mrs. Foval went to the cellar to supply the deficiency. They had both taken largely of intoxicants that day, but no one supposed to the danger point. A hired man or two and a hired woman were there and as they were busily engaged in eating, Mrs. Foval's absence was not noticed until some one wanted vinegar. A hurried trip was made to the cellar, where she was found submerged in water and unconscious. A youth that made his home with the family was at once sent to the village for a doctor. He overtook me within a quarter of a mile of the Foval home.

When we arrived there the two hired men were rolling her over in a barrel with both heads out, someone present having recommended that procedure as the best way to revive a drowning person. Mr. Foval, with a drunken, idiotic grin on his face, was giving directions to the men.

He was noted far and wide for using a certain by-word, which was "By Mighty." He was called this as often as by his real name. Most men use a by-word for a time and then discard it, then use another. Not so with our subject. He used it from youth to old age, and he lived to be over eighty years old. He never used another by-word. Every now and then he would call out in stentorian tones: "Roll her, by-mighty! Roll her! Roll her, by-mighty, roll her!" I prevailed on them to cease their labors long enough to allow me to give her a dose of strychnia and digitalin with the needle, and to make use of the usual means of expanding and contracting the chest to induce respiration; but only for a short time, for Foval would again give the command: "Roll her, by-mighty, roll her! Roll her! By-mighty, roll her! Roll her! By-mighty, roll her!"

A sister of the unfortunate woman, who had hurried to the scene, anxiously inquired of me if I thought there was any hope for her sister being revived. I did not give an entirely favorable answer, whereupon Foval spoke up, saying: "Jane will come out all right if you will roll her. Keep rolling her, by-mighty! keep rolling her!"

After a time that seemed long to me, she began to show signs of life, and this encouraged her husband to redouble his efforts. He gave the command more frequently to roll her, by-mighty! roll her! and when the sun had sunk well into the west she had revived enough to answer an occasional question. The following day she was up and about and did not appear so much the worse for her cellar bath and near-drowning experience. The sight of Mrs. Foval, wet, dirty, with touseled, matted hair, and a woe-begone appearance that is indescribable; the inhuman efforts that were made to revive her at the instance of a brutal, drunken husband, made an impression on me that I shall never forget, and confirmed me in the opinion I had long entertained, namely, that the only safe rule in regard to intoxicants is to touch not, taste not, handle not. And despite the unfortunate woman's seeming degradation, a refrain I often heard an evangelist sing at a rescue mission for fallen women in St. Louis came to my mind, namely, "Help Her, Help Her, Help Her, She is a Woman Still. God Help Her, She is a Woman Still."

The next and last case to be narrated on this occasion occurred several years ago near Alluwee. I harnessed my team and hitched it to the buggy for a trip among sick people then under my care. My wife and daughter were to accompany me. Just before getting into the buggy Richard Adams, a man well known to all old-timers, and now a prominent lobbyist in Washington, came to my house and said they wanted me to go at once to Billy Nichols'. I asked him what the trouble was at Billy's. He grinned, hesitated, and finally said: "Billy is laughing and can't stop." I said: "What in the blazes is he laughing about?" Richard replied: "They have a barrel of hard cider on tap and are all feeling pretty gay. Some one made a funny remark upon which Billy began laughing and he can't stop." He further said I had better take my gun along, that George Wilson was there and drunk, and had just chased a white man off the premises. I said: "George and I are pretty good friends and I don't think he will molest me." Richard replied: "He is drunk, has an ugly-looking gun, and you can't tell what a drunk man will do." I then thought it would be best to take my gun, which I did, a double barreled shotgun charged with heavy shot. The prospect of getting into turbulent company caused my wife and daughter to remain at home.

When I drove up to the Nichols' residence, George Wilson was mounted and waving a six-shooter over his head, and shooting occasionally. He all at once turned his horse's head towards the woods nearby, put spurs to his horse and was soon out of sight.

When I went into the house Billy was lying on the floor, laughing a loud, coarse laugh. I asked his sister Sarah if he could swallow anything. She said: "No, not even water." After vainly trying to get him to talk, I gave him a dose of morphine and hyoscine with the hypodermic needle. He soon appeared better and I started on my way to visit sick people at places further north—at David Winkler's and John Connor's, men who are still residents of that community. Winkler was one of the cider party at Billy's and was just leaving when I got to the Nichols' residence.

When I reached Winkler's he was sitting on the fence that enclosed the house. I spoke, but got no answer. I went through the gate to where I could see his face. He was grinning and giggling as though tickled to death, but I could not get a word out of him. I went into the house and asked Mrs. Winkler what the trouble with Mr. Winkler was. She said: "I suppose he has been drinking; he is acting the fool and I can't get him to come into the house." I prescribed for the sick and walked out into the yard. Winkler was still grinning and giggling to beat the band, but would not say a word.

I proceeded on my journey and had gotten about half way the distance from Winkler's to Connor's, when I heard a horse running at a pace that sounded like a race-horse at full speed. I looked back and saw Sarah Nichols coming as fast as the horse could carry her, and she was whipping him at every jump with a quirt, her long black hair waving in the wind—a laughable appearance truly. When she got alongside the buggy, she said:

"I want you to go back—Billy is laughing again." When I got back he was still lying on the floor, laughing the same maniacal laugh as when I first saw him. I again gave him a hypodermic dose of morphine and hyoscine. I waited about half an hour and as he was still laughing, I gave him another dose of the same medicine. In a few minutes I had the satisfaction of seeing him go to sleep. I remained for a time to see if I had overdosed him, and as he seemed to be resting easy I left for home, rather weary from fatigue and excitement.

I heard nothing from him during the night and I was on the road early the next morning. I was informed by those present that he had slept well all night, and he did not appear much the worse of wear on account of his cider spree and unique laughing experience.

From there I proceeded to Winkler's residence to see the sick there. As soon as I saw him I asked the cause of his strange conduct the evening before. He said: "That was the God-Almighty-d-m-d-est cider that ever went down my throat. Honest to God-Almighty, if I don't believe another glass would have set the hair on me. Everything that happened from the time I got to Nichols' till this morning appears to me just like a dream."

On returning to Nichols' residence the whereabouts of George Wilson was raised. He was forgotten during the excitement. A party of us proceeded to the woods in the direction he was last seen. We had not gotten very far into the brush till we found him asleep, his pistol by his side, his horse grazing nearby. He said he did not remember whether his horse threw him, whether he fell off, or got off, or how—in fact, he said, the previous afternoon and night and early morning were a complete blank to him.

Gentlemen of the Northeast Medical Association, the paper just concluded, voluminous though it be, is of but little professional or scientific interest. But I was lead to offer it under the belief that something in lighter vein, after much weightier matter, would serve as a recreation, and if such shall prove true I shall feel more than paid for the time spent in preparing and reading it.

A DIAGNOSIS OF CIRRHOSIS OF THE LIVER.*

By R. E. Pryor, A. B., M. D., Bartlesville, Oklahoma.

Early in my medical career I was profoundly impressed with the very great importance of the human liver. I have always found it a thing of interest from its rounded dome, along its gently sloping surfaces, to its abrupt edges. Its mere massiveness and solidity inspires respect; a knowledge of its architecture and internal arrangement makes of it a thing of beauty, while an understanding of its various and intricate functions fills one with awe.

As my knowledge of our infirmities has increased, I have come to realize more and more the immense task allotted to the liver in maintaining human existence. And as I have come to appreciate the many interferences

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from other organs and systems of the body, which directly or indirectly cause an abeyance or modification of its normal functions, I have developed a very kindly feeling and marked sympathy for this much maligned organ. I think there is no viscus loaded with such a variety of functions, with functions that are more essential, or which bears such a burden of undeserved censure as does the liver.

Hamlet, in his soliloquy, "To Be, or Not to Be," had he but known, could have answered the question of whether life was worth living, by saying that is depended upon the condition of the liver. Our forefathers, in formulating the Federal Constitution, guaranteeing life, liberty and the pursuit of happiness, knew not that the first and last, at least, depended upon each individual's liver, or they would, instead of the American eagle as our national emblem, have selected the human liver.

Having such a regard for this member, it is not surprising that in selecting a subject for a paper for this occasion, that I should have selected one pertaining to the liver. My choice of cirrhosis was based upon the fact that this disease furnishes the major portion of the pathology of the liver, and upon my belief that we have to deal with no condition which admits of such an extremely easy diagnosis post-mortem, but which is so extremely difficult of diagnosis ante-mortem.

A great deal of confusion surrounds this subject on account of the nomenclature and the endeavor of clinicians to establish specific clinical recognition for each pathological condition which may be found in a cirrhotic liver. Losing sight of the fact that it is impossible to diagnose more than two or three general varieties, they have continued to encumber the literature with elaborate descriptions of pathological phenomena which can only be suspected after the patient has crossed to the great beyond and his liver has yielded to the inquisitiveness of the microscope. As a matter of truth, when the pathology is sifted down, the fact is revealed that cirrhosis is primarily and essentially a hyperplasia of the connective tissue with, on the one hand, a destruction of the venous system and an atrophy or degeneration of the liver cell, and on the other a destruction of the biliary canaliculae and an hypertrophy or fatty infiltration of the liver cell. Being practitioners, you and I are not vitally interested in the minute pathology, so for the sake of simplicity and greater ease in handling the subject, I have endeavored to group all the cases under two heads, namely, atrophic and hypertrophic cirrhosis.

Atrophic cirrhosis has been variously described as alcoholic atrophic cirrhosis, Laennec's cirrhosis, and in its later stage as hob-nailed liver. This class furnishes the great majority of cases of cirrhosis. The subjects are usually males in the proportion of four to one. The age of incidence varies from six to ninety years, with the major portion occurring in mid-life, as is evidenced by mortuary statistics which show that of the fatal cases two-thirds died between the ages of thirty-five and fifty years.

In many cases the disease is well established before the patient is aware that all is not well, but most of them will complain of certain symptoms which may direct one's thought in the proper channel. The patient, usu-

ally a male, complains of loss of appetite, especially in the morning and earlier part of the day. He experiences a sensation of nausea or actually vomits at this time. The tongue is heavily coated, gives forth a foul odor, and is tremulous and unsteady. Upon inquiry one finds that the bowels are irregular, alternating between constipation and diarrhoea, with perhaps a tendency to hemorrhoids. The patient calls attention to the fact that after eating there is an unnatural distention of the abdomen, with gaseous eructation, and perhaps a sense of heaviness in the right hypochondrium. A thump on the abdomen reveals a marked tympany. As you will readily see these symptoms might occur after an ordinary drinking bout, or might occur in any dyspeptic condition, but if they seem to be persistent, especially in the case of one known to be or who admits being a drinker, the case becomes so suspicious that cirrhosis must be established or eliminated.

While alcohol has justly been given a very important place in the etiology of this disease, nevertheless there are authentic cases on record where it had no part in its causation. So an absence of alcoholic consumption in the personal history does not preclude the existence of an atrophic cirrhosis. And, too, the quantity of alcohol consumed must not be allowed to cloud the diagnosis, for in some undoubted cases only a small quantity had been consumed, while many confirmed drunkards never have cirrhosis.

A closer examination of the patient now, or, if not now, it will later, show a slight icteroid appearance, merely a yellow tinge; at no time is jaundice proper seen. The abdomen upon inspection presents an appearance of fullness, which may be due to tympany or ascites. Palpation and percussion reveal the presence of ascites, it being present in eighty per cent of the cases. The fluid may accumulate slowly, or in other cases with extreme rapidity. The quantity likewise varies from a small collection to an immense quantity. And in this connection a point to be remembered is that ascites is always preceded by meteorism. This tympany is brought about through interference with the portal circulation, which causes a venous stasis in the vessels of the stomach and intestines, producing a persistent chain of digestive disturbances characterized by flatulence, fermentation, nausea, vomiting, and at times a profuse diarrhoea.

At this time we see another of the landmarks of atrophic cirrhosis which is also a result of the portal obstruction—the compensatory circulation. From the region of the umbilicus one or more enlarged veins are seen, leading downward and to the right to empty into the inguinal vein; others pass upward and to the right over the costal margin, and the mammary veins are enlarged. In some cases the ascites diminishes with the establishment of this circulation. Another evidence of portal obstruction is manifested in the tendency to hemorrhage, which these people have, from the esophagus and stomach. There is often an enormous dilatation of the veins in the lower third of the esophagus, which through oozing, ulceration or rupture may give rise to an alarming or a fatal hemorrhage. Not infrequently this haematemesis is the first symptom that the patient notices, but even in such a case it must be regarded as a grave omen, for the obstruction to the portal circulation is necessarily well advanced.

An examination of the liver itself may not be of any positive help. Contrary to what might be expected, the liver is not always smaller than normal but in a limited number of cases is actually enlarged. Then, too, on account of the ever-present tympany and the usual ascites, palpation and percussion are not very satisfactory, so the exact dimension of the liver is often impossible to determine; however, it is not unusual to be able to outline the lower border, which is found to have a beaded edge and is hard, firm and free from tenderness. If the liver has contracted it is very difficult to outline.

The tympany and ascites often prove a source of grave embarrassment by collapsing the base of both lungs. And late in the disease there may be an effusion into both pleura. This may be simple but is often tubercular.

The spleen may be difficult to palpate, but in fifty per cent of the cases is found to be only slightly enlarged, and in the remainder is not enlarged at all.

Jaundice is conspicuous for its absence, other than the yellowish tinge mentioned above.

The urine as a rule is scant, loaded with urates, contains bile pigment, decreased urea output, and is usually free from albumen unless there is a coexisting kidney or heart lesion, but one frequently finds an alimentary glycosuria.

Even at an early date there may be some slight oedema of the feet and shins, which increases with the pressure from the ascitic fluid upon the vena cava. There may also be some oedema of the adominal wall due to the derangement of its venous circulation.

As a rule this disease is characterized by an afebrile course, but in cases under observation for a considerable period one may occasionally detect a slight evening temperature for a few days in succession.

Unless there is an associated perihepatitis, peritonitis or adhesions to the liver, as there often is, this disease is free from pain.

With the above considerations we are now able to draw a composite picture of an advanced case of atrophic cirrhosis. The patient's face has a sallow appearance, the eyes are yellowish and sunken, the malar bones prominent, the venules of the nose engorged and the nose itself has the classical bottle shape. The tongue is tremulous and coated. The mental attitude is uncertain, being prone to assume the symptoms common to uremia. Stripped, the patient shows feebleness and muscular emaciation resulting from poor nutrition, the bony thorax and the thin, weak limbs are in marked contrast to the prominent stuffed abdomen with its enlarged veins. Then, too, the absence of jaundice, of temperature, of pain, of liver enlargement, of pronounced splenic enlargement, together with the presence of ascites, of the collateral circulation, and a history, makes a picture which looks easy, but in reality often makes a fellow "think just what it ain't."

In arriving at a diagnosis in an early case, the first point is to eliminate chronic gastritis. The symptoms are practically the same except in the case of cirrhosis we are likely to have esophageal and gastric hemorrhages. If

the liver can be felt and its character determined, or if there be ascites or evidence of the collateral circulation, the former is readily discarded.

Next, the hemorrhage might suggest gastric ulcer, but here the pain coming on soon after eating and lasting during the digestive process, together with "the tender spot," eliminates ulcer. The continuous pain, associated with cancer of the stomach, disposes of this malady.

Chronic tubercular peritonitis and cirrhosis have a great many symptoms in common, such as digestive troubles, tympany, ascites and progressive loss of flesh. But the amount of fluid is much smaller, it is more easily displaced, the collateral circulation is not so well developed, and as a rule this disease is associated with pulmonary tuberculosis. Further, there are no hemorrhages nor any enlargement of the spleen.

Chronic alcoholic peritonitis having the same etiology and most of the symptoms of cirrhosis, is often impossible to differentiate.

Cancer of the peritoneum may present, and usually does, ascites and a collateral circulation in a less marked degree, but at the same time offers palpable nodules or indurations in various locations in the abdomen. In addition to this there is the more rapid progress of the disease, and if at any time the fluid is drawn off, it is hemorrhagic in character.

Cancer of the liver may present some difficulty, but usually it is secondary to cancer of some other organ, is prone to cause an irregular outline of the liver, is marked by a more acute course, occurs at a relatively later age, and has jaundice and no ascites.

In tracing the pedigree of hypertrophic cirrhosis, one finds that it has been a source of much controversy. Most of the prominent authors differ widely as to the nature of the malady, its etiology, pathology, symptomatology, course, duration and termination. So one possessing only a meagre knowledge of medicine and having an even more meagre experience, may well take up this subject with fear and trembling.

Fortunately for humanity and the doctor, the cases are rare, and when well established present a fairly well recognized train of symptoms. We find that males are more often affected than females; that it occurs at a relatively earlier age, children furnishing a great many cases, and that the family history is of importance, as the disease frequently occurs in successive generations.

The early symptoms are as a rule vague and indefinite. The patient will usually complain of a general feeling of ill health, loss of appetite, muscular weakness and a sense of weight in the region of the liver. These symptoms may have existed for a year or two before the patient consults a physician. Again the onset may begin as a congestion of the liver with tenderness, pain and fever, followed by jaundice. On the other hand jaundice is usually the first symptom, occurring without pain, digestive disturbances, or fever. This jaundice proves to be persistent, lasting until death supervenes. It possesses as points of interest the fact that it is persistent, that the stools do not become decolorized, and that it is one of the chief symptoms.

The patient is aware that the abdomen is gradually enlarging, and when the liver is outlined it is found to contribute a large part of this enlargement. It may extend from a few fingers' breadth below the costal margin to the iliac crest and across the abdomen to the left side. This enlargement may have come about gradually or by successive congestive attacks. However large the organ may become it retains its normal shape; its surface is smooth, as compared with atrophic cirrhosis; its edges are well marked; it is firm, and is painless so long as there are no complications.

The spleen is almost always enlarged, often two or three times its normal size. This enlargement constitutes one of the cardinal symptoms and it also plays no small part in adding to the size of the abdomen. The urine contains bile pigment, decreased urea, no albumen, and no sugar.

Hypertrophic cirrhosis, strictly speaking, is not a febrile disease but very frequently there is an evening temperature of two or three degrees, and a hyperpyrexia often ushers the victim out.

We see from this that jaundice, liver hypertrophy and splenic hypertrophy are the cardinal symptoms. But the absence of any evidence of portal obstruction, such as ascites, oedema or collateral circulation, are negative symptoms of great value. A differential diagnosis cannot be made until the liver becomes enlarged and permanent jaundice supervenes.

A simple catarrhal jaundice which may persist from two weeks to two months may give trouble in the beginning, although in this condition the stools are usually decolorized, while this is an exception in cirrhosis.

A malarial cachexia presents an hypertrophied liver and spleen, but the history of malarial attacks will create suspicion, while the microscope and the administration of quinine will clear the diagnosis.

Syphilis produces a true cirrhosis only in its inherited form. We find it then in still-born babies and in those who have survived their birth by only a few weeks or a few months, and we do not usually make a diagnosis during life. We must, however, distinguish between syphilis of the liver and cirrhosis. In syphilis of the liver the gummatous formations usually give the liver an irregular outline. There is no jaundice; there is a moderate ascites, and albumen in the urine. We have the same digestive disturbances and absence of pain, but there is a history of former syphilis or some of its marks.

In bronzed diabetes we sometimes have an enlarged liver, but the skin is bronzed rather than jaundiced, and while the liver is enlarged, the spleen is not, and the urine will tell the tale.

An examination of the blood and the absence of jaundice eliminates leucocythemia.

There is no jaundice in primary cancer and the spleen is not hypertrophied. In secondary cancer the enlargement of the liver is irregular, and in both the cachectic stage is reached in a few months.

It may not be possible without a puncture to differentiate a hydatid cyst, but the enlargement in addition to being irregular has not the firm, hard resistance found in a hypertrophied liver.

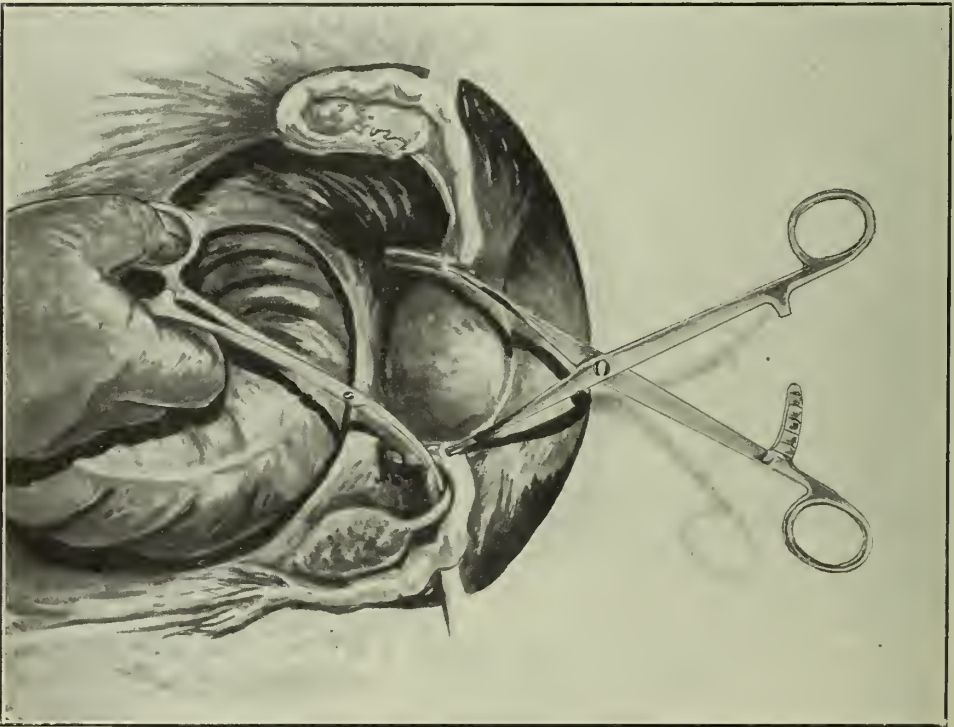
There is no possible excuse for an error between atrophic and hypertrophic cirrhosis, but there are certain mixed cases of cirrhoses which betray a leaning for first one then the other division which, as a rule, cannot be definitely diagnosed during life.

THE SIMPLIFIED BALDY-WEBSTER OPERATION.

W. E. Dicken, M. D., Oklahoma City, Okla.

There have been various methods of suspension or fixation, of a retro displaced uterus which have been devised by Wm. Polk, W. Gill Wylie, G. M. Edebohls, J. Riddle Goffe, D. Tod Gilliman, J. M. Baldy, W. Bovee, J. C. Webster, S. Watkins and Wm. Mayo.

Of all these operations, which have to do with the restoration of a retroverted uterus, the so-called Baldy-Webster operation, which was so forcibly called to the attention of the profession in the years 1901 and 1902,

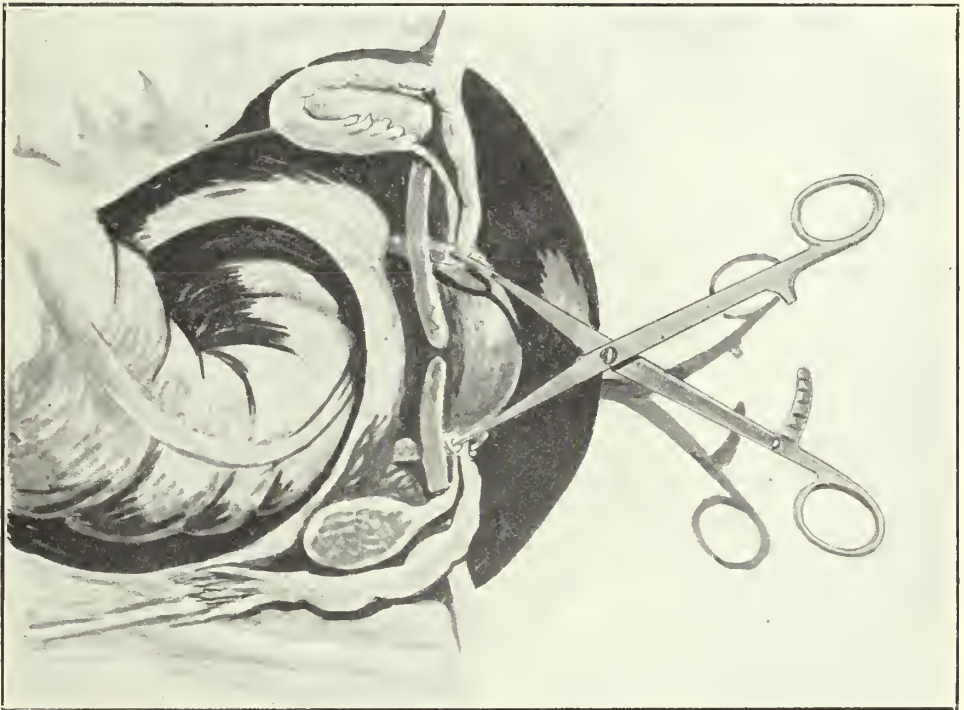


is, I believe at this time, conceded to be the simplest and the best procedure for the restoration of a retroverted uterus, together with prolapsed ovaries.

This operation is so well known that it is not my purpose to comment on the operation, only so far as to present for your consideration the use of some instruments which in my opinion are of vast importance, not only in the prevention of ileus together with adhesions, but in the convenience to a more thorough technic in the performance of the same.

In the Baldy-Webster operation you will remember we are instructed to grab the fundus of the uterus with the tenaculum, in order to hold it up in suspension, and with artery forceps, push through the broad ligaments close to the uterus, immediately below the utero-ovarian ligament and grab the round ligament, drawing the inner circle of the double ligaments snugly about the uterus, suturing them together, at a point high enough to assure that the fundus cannot double backward over the encircling round ligaments.

Now the objection to this technic is that the tenaculum leaves an abraded surface on the fundus which will act as a raw surface, to encourage peritoneal adhesions, thereby provoking uterine suspension and the blunt artery



forceps making a large hole, together with laceration of the broad ligament, further encouraging adhesion points, making liable a case of ileus, should the bowel adjacent thereto adhere.

These objections and dangers are readily overcome as you will see by the application of our suspension uterine forceps, the blades of which astride the broad ligaments on either side, snugly holding the uterus steady and suspended, while our curved, sharp-pointed forceps makes a round, smooth hole through the folds of the broad ligaments, with the proper curve, point fall across the round ligament at the proper distance from the uterus, grabbing the round ligament by closing the forceps and with some little force, the ligament folded upon itself is pulled through the small opening

in the broad ligament leaving behind a closed hole filled entirely by the round ligament.

This, you can readily see, simplifies this already simple operation to a minimum and furthermore leaves behind no abraded surfaces, lessening to a minimum the dangers of post-operative ileus and peritoneal adhesions.

After our linen stitch unites the two folds of the round ligaments behind the uterus and the two fixation sutures are applied, our forceps are removed, as the round ligaments have been brought over and sutured, burying one prong of the suspension forceps on either side; the forceps are unlocked and are readily pulled loose, leaving the uterus in its normal position.

DETERMINATION OF RENAL EFFICIENCY.*

Horace Reed, M. D., Oklahoma City.

The requirements of modern surgery have demanded a more thorough knowledge of renal capacity than is to be obtained from the ordinary uranalysis. The advancement made as a consequence of these requirements mark an epoch in the history of the treatment of kidney diseases.

Nor are the advantages limited alone to those cases wherein surgical renal affection is the primary trouble. Internal medicine in its many phases has felt the impulse incident to the acquirement of new and useful knowledge concerning kidney activity. In fact, there is no branch of medicine which is not materially benefitted by the results of thorough investigation and demonstration of definite, accurate methods for the determination of renal efficiency.

These methods are various. Some are more practical than others. All may have their faults, but for me to go into detail concerning the development of, and the technic required in the application of the large number which have been given us, would be tiresome if at all possible.

We therefore limit this paper to a discussion of the method or combination of methods which the writer has found useful, practical and reliable in his hands for the thorough testing of renal capability.

The function of the kidney is to eliminate waste products of metabolism and certain other poisonous substances. The promptness with which elimination takes place bears a direct ratio to the efficiency of the organ.

To measure the urinary output might give results which would be misleading. The total quantity of urine voided in 24 hours may be of normal specific gravity, may contain no albumin nor other pathological elements, and yet the patient from whom it is collected may show signs of kidney insufficiency and the kidneys, if examined, show an advanced stage of disease.

The logical thing to determine would be the amount of retained products. It is the retained products that produce the systemic manifestations. Unfortunately, the methods used for the purpose of determining the amount

*Read before the Oklahoma City Academy of Medicine in 1913.

of waste products retained in the blood volume, are highly complicated, subject to many errors and inaccuracies and are therefore impracticable.

But it is evident if elimination takes place promptly the unbalance in retention will not long exist. To measure the degree of promptness is the task, then, that is set before us. Fortunately this can be done.

It is well known that certain drugs when administered internally are eliminated by the kidneys—strychnine for instance. Experiments with certain non-toxic drugs have demonstrated conclusively that the promptness of elimination bears a direct ratio to the efficiency of the kidney to perform its normal work. Of the numerous drugs which have been used for this purpose we will consider only two, namely, Indigo-Carmin and Phenol-Sulphone-Phthalein.

These substances, when introduced intramuscularly in sufficient quantities to make the test, are entirely non-toxic. It has been thoroughly demonstrated that they are eliminated almost entirely by the cells of the tubules and, therefore, any conclusions drawn from tests made with these substances must refer only to the excretory power of the tubule cells.

The glomeruli have very little to do with the elimination of waste or toxic products. Their action is largely if not altogether osmotic. Glomerular nephritis of marked degree may exist without there co-existing an insufficiency of urinary excretion. This condition could not last long without the production of interstitial trouble, however. Glomerular nephritis is so easily diagnosed by the ordinary means that no further procedures are required. The disease may end without leaving any impairment whatever in the renal function.

No doubt all of us have seen cases of marked albuminuria recover promptly without leaving any trace of the disease in the subjects.

Patients with glomerular nephritis whose kidneys are not otherwise diseased will eliminate Phthalein and Indo-Carmin as promptly, or nearly so, as when the kidney is entirely healthy.

Technic.—Carrying out the test with Indigo-Carmin requires that the operator has good color perception and that he be proficient in the use of the cystoscope. The bladder must be thoroughly washed and left filled with 150 to 200 cc. of perfectly clear aseptic solution. For this purpose I use boric acid solution.

Two and one-half grains of c. p. Indigo-Carmin just previously boiled in 4 cc. of water is introduced intramuscularly, preferably into the quadriceps extensor.

The time of this injection is noted by an assistant. A diagnostic, brilliantly lighted cystoscope is now introduced and after a rapid inspection of the bladder the operator observes closely first one ureteral opening and then the other. Within a few minutes from the time of injection of the dye, a deep blue stream will jet from the ureter which leads from a healthy kidney.

This interval will vary between seven and ten minutes. If the interval should be twelve minutes it must be assumed that there is slight renal

impairment. If fifteen or sixteen minutes lapse before the blue stream appears, the diseased condition of the kidney is advanced, and if twenty minutes has passed since injection was made without the appearance of the blue stream, it must be assumed that the kidney is gravely diseased, if not altogether incapacitated.

The time of observation need never last longer than twenty minutes. The chief value of this test lies in its usefulness as a means for determining the relative efficiency of the two kidneys, particularly when surgical attack of one is contemplated.

In unilateral renal disease where nephrectomy is indicated, it is sometimes of more importance to determine the working capacity of the opposite kidney than the extent of disease in the crippled one. Indigo-carmin lends itself admirably to this end.

Phenol-sulphone-phthalein is employed as follows: 6 mg. in 1 cc. solution is injected into the lumbar muscles. (Ampules containing 6 mg. in 1 cc. solution may be obtained from Hyson, Westcot Co. of Baltimore). In one hour and ten minutes from time of injection the patient is to void urine. This urine is rendered alkaline by the addition of a few drops of 25 per cent Na. O. H. solution. Distilled water q.s, is added to make a 1000 c. c.

A standard solution is made by placing 6 mg. of phthalein in 1000 c. c. of distilled water, to which a few drops of Na O. H. has been added. This makes a brilliant, red colored solution.

The urine collected and treated as above stated will make a red solution, the deepness of the tint depending upon the amount of phthalein it contains.

Two test tubes of equal diameter may be utilized in measuring the amount of phthalein excreted. One is filled with the solution containing the urine. In the other a definite amount (1, 5 or 10 c. c.) of the standard solution is placed. By comparing the two it will be found that the standard solution has a deeper color than the other. To the standard solution is now added distilled water, which has previously been rendered alkaline, until by dilution the color in the two tubes is the same. The known dilution of the standard solution serves as a basis for determining the percentage of phthalein excreted in one hour. (The extra ten minutes is allowed as an average of the time it takes for the excretion to commence after the injection of the drug)

Healthy kidneys will excrete 40 to 60 per cent of the dye in one hour. If less than 40 per cent is excreted during the first hour, the urine for the second hour should be collected and the quantity of phthalein likewise determined.

If within two hours as much as 50 per cent has been excreted, the kidneys may be considered normally efficient. Between this figure and zero, the percentage of output bears a direct ratio to the efficiency of the kidneys. Several cases of no elimination have been observed, according to reports, in some of which there were no previous suspicion of renal trouble. All died within a very short time with uremia.

In making this test it is essential that the patient be able to completely empty the bladder, or, in case he is not able so to do, that the urine be collected by means of a catheter. The amount of phthalein output bears no relation to the amount of urine excreted, therefore the drinking of large quantities of water, as was previously advised for the purpose of producing polyuria while the test is being made, is not essential.

Phthalein is now being extensively used—I might say universally employed—as a means for determining total renal efficiency. The many criticisms which have been made of it as a test have been successfully answered.

The question arises under what conditions should one or both tests be employed. The answer will readily suggest itself to the clinician who is familiar with the patient's condition as ascertained by physical examination and a previously made complete uranalysis. In general it will be found advisable to employ both on the same subject, but on alternate days.

It can be readily seen that the indigo-carmin test has its limitation. This test cannot be employed as outlined if cystoscopy cannot be done, therefore urethral stricture, many cases of prostatic hypertrophy and acute cystitis would serve as contra-indications.

Phenol-sulphone-phthalein has no such contra-indications, except the one—the impossibility to collect the urine.

In conclusion we will state that since surgeons have been employing these or other meritorious tests as a means of determining renal efficiency, the mortality rate from kidney surgery has been reduced about 20 to 50 per cent. No further evidence than this is required to demonstrate how extremely important it is to test renal capability by some method before deciding the fate of a surgical kidney.

But in general surgery the field is broader still. In surgical disease of any kind where the attendant is in doubt as to the efficiency of the most important of the emunctories, the result of the Phthalein test may serve as a warning to postpone operation or abandon it altogether.

These tests are scarcely less important in general medicine. Already many tests have been made on various drugs of the so-called diuretic group. The results are extremely interesting. In some instances it is shown that our ideas have been in error as regards the action of certain drugs.

The possibilities of these tests offer a wide field for further investigation in other groups of drugs, as well as in diseases wherein renal activity is deeply concerned. I have long had a suspicion, without knowing why, that kidney activity was insufficient in those cases showing poor strychnine tolerance. It would be extremely interesting to know whether the elimination of sugar in diabetics is retarded, resulting in an accumulation in the blood, in proportion to the ordinary urinary elements and therefore in proportion to Phthalein retention.

We thoroughly believe that we are well on the road to the solution of these and many other problems through the instrumentality of these and various other tests.

TRAINING OF EXPECTANT MOTHERS AND THE CARE OF INFANTS.*L. H. Huffman, M. D., Hobart, Oklahoma.**

Life today is demanding more than ever in the history of the world. In every occupation and in every profession and department of business there is a greater strife for supremacy, and in keeping with the times demands a closer proximity to perfection. Business organizations demand master minds and a system as complete as a perfect machine. Antiquated methods and ideas are lost in our present manner of living and scheme of things. This struggle for supremacy in all lines of business, with the strife to be at the top of the ladder, demands from each individual the qualifications necessary to meet these requirements. He who enters this life handicapped by the lack of proper training, education and environment must of necessity fall far behind in the race and fail of success.

A healthy mind, a necessity for a wholesome citizenship, cannot be built on a defective body, therefore in the interest of public health and for the raising of the standard of our citizens of tomorrow, a continuous co-operation of physicians, teachers and public health departments is required to overcome the physical defects of infants and children.

The care of expectant mothers determines the strength of the child, whether it be a healthy, normal child or the reverse. Now, the essential points in the care of expectant mothers are four in number—to eliminate disease, debility, improper food and overwork. It would require a readjustment of our social and economic conditions to gain these points. Not only does the present system exert its influence during the nine months previous to birth, but also unfits the mother for nursing and caring for the child after birth.

The better baby contests, as a new movement, have for their supreme purpose the placing before parents of such information as will teach them how to preserve the child's energies and by so doing bring about as nearly as possible perfect human beings. Few parents now with the ordinary customs have proper time to devote to their home, necessarily neglecting the training of the children. The well-to-do are in search of pleasure, while the poorer classes are compelled to spend the most of their time in mills or factories. Reducing the working hours of women who are compelled to earn their living and the passage of the child labor laws have done much toward reducing infant mortality. Through the boards of health and medical meetings, to which the public is invited, much valuable information is given out as to correct methods of living and sanitation.

The health of the infant is greatly influenced by the health of its parents, particularly the health of the mother. One-third of all infants dying in the first year of life die the first month, and one-fourth of these die the first week. The deaths may be due to conditions that develop after birth, but are in a large measure due to absence of proper hygienic living of the mother previous to giving birth and not to lack of care of the child after delivery.

*Read at Joint Meeting of Western and Central Oklahoma Medical Associations at Hobart, Okla., October 29, 1913.

It must be remembered that the mother is the only source of food and nourishment for the child for nine months. From her blood the child must be formed. Then if her blood is diseased or if she is overworked, or worried, or underfed, the blood supply of her offspring is impoverished, and the result is a diseased or deformed and debilitated child. As an example of this dentists now claim that the caries of children's teeth is due to the lack of lime salts in the mother's blood previous to birth.

In the same manner all the other organs of the body are influenced in regard to the proper development, depending upon the composition of the blood of the mother. Diseases affecting the offspring most are mental diseases, insanity, epilepsy and lastly the one most dreaded of all—syphilis. All chronic diseases of the mother, whatever they may be, are productive of a lowered vitality and a weakened condition of the child.

For the nine months during pregnancy, great strength and energy is required, and as each mother has but a certain amount of this it is quite necessary that they be conserved during this period. The mother carrying the child has a constant drain on her system, and if she is using her strength in other directions the child is robbed. In all cases where the care of the mother has been systematic we find no miscarriages, no still births or difficult labors, but instead we have a healthy baby free from disease and up to the standard in weight and vitality.

The subject of greatest importance for the infant is that of feeding during the first year of life. There is but little doubt that there are fewer mothers now nursing their children than in the past. While there has been an immense improvement in the physical and social life of people in all countries during the last century, the high rate of infant mortality leads us to but one conclusion and places the blame on one cause—artificial food. No matter how carefully or scientifically we may modify the food, there is but one which is natural and will produce a well developed child, and that is the "natural mother's milk." Whether or not the mothers have a supply of breast food, it is a fact that artificial food is more frequently used than previously. Our drug stores are filled with patent and proprietary foods on which there is placed too high a valuation.

Many mothers could and would nurse their children had they been properly instructed in regard to the importance of nursing the baby and the ill effects which result from artificial foods. We find the greatest number of artificial fed babies, first, among the women employed in the factories and, second, among those who play society, likewise the highest infant mortality. Let us consider the future life of the child and what adverse conditions it must contend with unfitted for the struggle before it when improperly nourished by artificial foods.

Passing from the infant, a few points on the general care of the child. Good, simple, pure food, including milk and fruit, are the requirements for the child. Teach them to masticate well and for the same reason to have proper mastication and a well nourished child. The teeth should be given proper attention. Exercise, plenty of fresh air and sleeping in the open will

act properly to stimulate and develop the child both physically and mentally. Strong, sturdy and active children are those who are brought up under good hygienic conditions and environment. The backward, dull children are descendants of parents lacking in physical and mental strength. Crowding children either in a physical or mental way beyond their natural ability will produce physical weakness or mental dullness, and for this reason we see at once the great importance of having a school physician who should concern himself with those who are mentally backward and co-operate with the teachers in guiding them in the amount of work they are to do and assist in the mental and physical development of the children.

No branch of hygiene perhaps has met with so little progress as the prevention of the infectious diseases of childhood. This is partly due to the inability on the part of the laity to comprehend the loss of life from these diseases. Measles, whooping cough, diphtheria and scarlet fever are the four diseases which recent investigation have shown to be the most fatal, and are all preventable diseases. Epidemics of these infectious diseases which cause death and distress in different cities every year should be prevented by a quarantine rigidly observed and enforced.

Let me say that every doctor in our country should employ his every energy and known method towards the prevention of these diseases, and the greatest progress can only be made after the public has been educated at public health meetings and they too can lend a helping hand toward their prevention.

Human lives are at stake, therefore educating the public is a necessity and can be accomplished by public meetings to properly instruct them along the line of preventable, infectious diseases. We can not place too much stress upon the importance of every professional man and good citizen lending a hand in this cause.



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ENTERED AT THE POSTOFFICE AT MUSKOGEE, OKLAHOMA AS SECOND CLASS MAIL MATTER, JULY 28, 1912

THIS IS THE OFFICIAL JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION. ALL COMMUNICATIONS SHOULD BE ADDRESSED TO THE JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION, BARNES BUILDING, MUSKOGEE, OKLAHOMA.

The editorial department is not responsible for the opinions expressed in the original articles of contributors.

Reprints of original articles will be supplied at actual cost, provided request for them is attached to manuscript or made in sufficient time before publication.

Articles sent this Journal for publication and all those read at the annual meetings of the State Association are the sole property of this Journal. The Journal relies on each individual contributor's strict adherence to this well-known rule of medical journalism. In the event an article sent this Journal for publication is published before appearance in the Journal, the manuscript will be returned to the writer.

Failure to receive the Journal should call for immediate notification of the editor, 507 Barnes Building, Muskogee, Okla.

Local news of possible interest to the medical profession, notes on removals, changes in address, deaths and weddings will be gratefully received.

Advertising of articles, drugs or compounds not approved by the Council on Pharmacy of the A. M. A. will not be accepted.

Advertising rates will be supplied on application. It is suggested that wherever possible members of the State Association should patronize our advertisers in preference to others as a matter of fair reciprocity.

EDITORIAL**A BADGE AT THE ANNUAL MEETING.**

The decoration of the physicians' lapel with a member's badge at Guthrie will indicate that he has paid his dues for 1914 and is entitled to all privileges as the guest of Guthrie, including as many of their justly famous municipal baths as his tender skin will tolerate, and such other attentions and niceties as the citizens of the city so well know how to bestow.

At every annual meeting a certain number appear for registration and recognition whose names do not appear on the roster made up from orders of the county secretaries. The application and search through the roster for the name of the applicant is a matter of embarrassment to the officer in charge and leaves dissatisfaction in the mind of the applicant, often an idea that he is being unnecessarily humiliated by the refusal consequent to his non-membership according to the record.

The Secretary desires to state that he is in no way responsible for the failure of the member to see that he is in good standing or the occasional failure on the part of the county secretary to remit to the State Association dues that have been paid by the individual, but not

remitted to the State Secretary, and takes this occasion to remind those who have not received a certificate for 1914 who propose to attend this meeting that they now have time to place themselves in good standing and avoid taking up the time of the officers in clearing their record at a time when they are extremely busy with other important matters.

If you have not paid up for 1914, do it now.

YOUR PAPER FOR THE GUTHRIE MEETING.

The editor of your Journal, at the risk of being termed a stickler, possibly full of conceited assumption, wishes to call the attention of contributors of papers for the annual meeting to some of the commoner lapses prevalent in writers, with a view to their prevention as far as possible.

All medical journals have the question of poorly and improperly prepared papers to contend with and, to right the matter so far as they can, the Journal of the American Medical Association has prepared a 27-page pamphlet on "Suggestions to Authors," costing only 10 cents, full of good practical information. It is suggested that this be consulted in cases of doubt on the writer's part.

Some of the commoner troubles encountered are: Omission of the author's name and address under the title; indecipherable interlineation; addition of a part of the text as a footnote or afterthought; spelling it "aenemia," then "anemia," then "anaemia." If you must spell a word wrong, be consistent, and spell it that way every time; jumping from bough to bough does not necessarily mean versatility. It is well to place a note at the bottom of the first page, reading, "Read before Surgical Section of Oklahoma State Medical Association, Guthrie, May 14th, 1914." Articles should be double spaced with liberal margins. An unnecessary and useless expense is often caused by the inclusion of pictures or drawings supposedly explanatory of the text, when, as a matter of fact, the drawings are so familiar to the reader that they barely get a glance from him.

If you want reprints of your article, write on the margin at top of first page: "Quote price of 100, 500, 1000 reprints." The printer will furnish them at actual cost, after the article appears in the Journal and nearly coincidental with its appearance. A colored cover to an article of any length adds tone to its appearance, though it is not necessary, and adds very little to the cost of reprinting.

Rarely, but occasionally, a contributor breaks faith with the Journal by sending his article to other journals for publication. Articles read at the annual meeting are the sole property of the Association, the writer having no right whatever to give them publication elsewhere except by direct permission of the Association. Common usage and courtesy demand that articles read at the annual meeting be published in the official publication you own, not in some advertising sheet reeking with improper advertising of compounds the contributor never uses in his work.

Priority of reading at the annual meeting cannot be followed by a corresponding publication. The article you are going to offer at Guthrie is superior to any others read, doubtless, though it appears at the bottom of the list or nearly so, but in order to make a journal of equitable quality it will be necessary to arrange them with a view to their applicability. An article on bronchitis, pneumonia and similar subjects is timely in the winter and spring; something good on typhoid fits well in August and September in Oklahoma. The editor asks you to be patient in this respect and allow him to hold yours until it is needed to counterbalance the inferiority of the product of the other fellow.

THE QUESTION OF PHYSICIANS' DEFENSE IN THE ASSOCIATION.

It will probably be a piece of information to many members of the State Medical Association to know that for several years the question of establishing a bureau in the State Medical Association to defend malpractice suits against individual members has, under one guise or another, been under consideration by members of the Council and the officers of the Association. It is a matter of regret to many of us who know conditions that it has not been established before this.

In the last five years, since the writer has been connected with the Association, as an officer, the question has been brought up under different conditions, at different times and places, but no positive step has been taken toward its establishment.

That there are strong and good reasons for the establishment, every student of condition acknowledges. Aside from the fact that a large number of states now maintain such a bureau; that it is working, and working well in practice, and, that universally, those who have it would not return to former conditions, is evident. That there is a universal desire on the part of those states not having such a bureau to establish one is patent from the inquiries continually received from their officers and committees asking for information on the subject. Laying aside the precedent already established by other states in this matter and considering it with reference to our own peculiar needs, one must conclude that it is a proper step and function of the organization to do everything that may lighten the burden on the individual member, and this step would be one of protection to every member.

It is useless to delude ourselves with the idea that such suits are matters for others to worry over, that we will have none, that we can care for ourselves without help from our brothers. These suits are, almost without exception, surprises to those who are called on to answer them. They come as damaging things to the defendant whether he is to blame or not. The cases we take the most care of, are often the ones made subject of suit. A large number of them come from sources where the physician has attempted to collect a well-earned fee, and the suit is an answer to his demand that he receive an earned compensation for his labors. Another, and respectable number, come from ignorant, pauper

beneficiaries of his labor, often backed by the unseen, vicious attacks of a so-called "brother physician." It is in prevention of the activities of this class of physicians that a united, well-operated physicians' defense bureau would be found most useful and just.

The delusion that we will not be the next object of attack is impossible of entertainment when we consider that they are brought against every class of the profession. The standing of a physician is no bar whatever against them; they come like a cloud in a clear sky, unexpected and often without a reason. They are the result of the peculiar conditions under which a physician labors and his defense of them is often a matter of great difficulty due to the fact that the final word must be determined by a jury invariably unable to comprehend the finer points of diagnosis and procedure—a so-called jury of one's peers. They have been brought against the leading surgeons, medical educators and most highly respected members of the profession in every state; it is certainly unwarranted to assume that they may not be brought at any time against any individual physician who may have worked for his patient's good in the most painstaking and intelligent manner.

Illustrative of this may be mentioned some of the suits hurriedly called to the memory of the writer. In other states John A. Wyeth, M. L. Harris, Ochsner, a leading Baltimore surgeon, name not now available, and scores of others too numerous to even look up have had to answer these suits—suits usually brought by the class of people who pay into court a paltry ten dollars, then, under oath, state they are unable to pay more costs and after that the suit is prosecuted at the cost of the state. In one instance a railroad man fell from the top of a car of logs over a trestle, an estimated distance of twenty-five feet. His physician, concluding amputation was necessary and that step having been agreed to, a distance of fifteen miles was covered to a surgeon who, on examination, decided the limb might be saved, and did save it after months of tedious work. The surgeon had his reward in a suit for malpractice on the principal allegation that the wrist of the plaintiff was stiffened and did not functionate as formerly. The surgeon was faced in court by his former patient, who had returned to the same occupation he had when the injury was received. A Muskogee surgeon, many years ago, performed the first excision of the knee-joint for an old, fractured and useless patella ever performed in Oklahoma. Prior to the operation the man was nearly helpless and could not do any of his former work, but after recovery he was accosted by a snitch lawyer (it should not be forgotten that these gentlemen who are sworn to use their efforts to prevent litigation are often encouragers of these cases), who advised him to bring suit. It is a matter of credit to the patient, who has since amassed a comfortable little fortune by his work, that he promptly told the would-be trouble maker "you are a fool." Not long since a Muskogee surgeon testified in court in the case of a litigant. The testimony angering the litigant, he threatened to bring suit against the surgeon by reason of an operation previously performed on his wife, which operation, up to that

time had been successful and fully paid for without question. These instances could be greatly multiplied.

Personally the writer is fully able to take care of himself in these matters, but he believes that a bureau along sensible lines would be of very great value to the individual and to the mass of physicians constituting the Oklahoma profession. Its organization would mean the welding together of all high-class professional men in the state with a view to unity of effort and defense by the entire body of the individual who, in nearly every instance, is the victim of a dishonest attack, fostered by a green-eyed reptile under the cloak of a "brother physician."

THE AMERICAN MEDICAL ASSOCIATION COUNCIL ON HEALTH AND PUBLIC INSTRUCTION.

The Journal is just in receipt of copies of ten pamphlets on "Conservation of Vision" and five on various public health topics issued from the office of the Council by the Secretary, Dr. Frederick R. Green. The pamphlets in order are: "School Children's Eyes," "Care of the Eyes," "The Eye and Its Functions," "Lenses and Refraction," by Frank Allport, Chicago; "Eye Strain," Hiram Woods, Baltimore; "Autointoxication and the Eye," Henry D. Bruns, New Orleans; "Trachoma in Eastern Kentucky," J. A. Stuckey, Lexington; "The Relation of Illumination to Visual Efficiency," Ellise M. Alger, New York; "Industrial and Household Accidents to the Eye," Harold Gifford, Omaha, and "Wearing Glasses," Walter B. Laneaster, Boston.

Those on public health topics are: "Death and Blindness from Methyl or Wood-Alcohol Poisoning," Casey A. Wood, Chicago; "Child Culture the Function of Organized Medicine," Henry B. Favill, Chicago; "The Municipal Regulation of Milk Supply," Edwin O. Jordan, Chicago, and "Control of Cancer," Joseph Colt Bloodgood, Baltimore.

Every physician should be a self-constituted propagandist in the fields above noted. The essays or addresses noted are from men who have studied their given subjects with a fidelity born of a desire to accomplish something aside from the mere making of a name; for the good of humanity in general. Until the individual physician realizes that he has as much of a duty to perform in this respect as any other physician, he will have woefully missed a true conception of his errand or mission. The sordid, small, mean little spirit that creeps home at night after wringing a few paltry dollars from his clientele without giving the broader aspect of humanity a part of his consideration and earnest thought toward betterment, does not properly belong to the noble profession of medicine. The writer believes that it is the desire of the rank and file, overwhelmingly so, to fulfill every required function placed upon us. Those who have studied the spasmodic efforts of physicians to assist in various civic, public health and municipal activities are impressed with the belief that a directing hand must always be at the helm in order to accomplish results and conserve the energy otherwise wasted

in misdirected effort. The Council, by its great activity, has placed in reach of the individual physician food for the thought of months and years. We believe the perusal of these pamphlets will give each of us a clearer insight into the matter of conservation and prevention than we have heretofore enjoyed. To those who have ambition and talents for directing and leading public thought in the channels necessary for concerted action these issues will be found veritable mines of condensed information and will be furnished on demand of the Association at such a reasonable figure that the price is not noticeable.

The Council is to be congratulated on the issuance of this work.

PERSONAL AND GENERAL NEWS

Dr. O. S. Burrows has moved from Howe to Wetumka.

Dr. J. J. Davis has moved from Weatherford to Higgins, Texas.

Dr. E. P. Green of Hoyt has located in Hanson.

Dr. O. N. Windle, Sayre, has been appointed health officer vice J. A. Baker, who has moved to Port.

Dr. George Tilly, Pryor, announces his intention to run for State Senator from Mayes-Delaware District.

Dr. K. D. Gossam, Custer, recently suffered from an attack of appendicitis.

Dr. J. A. Patton, Stilwell, who has been absent from the state for some time, has returned to his old location.

Dr. J. A. Martin, Valliant, has removed to Durant.

Dr. E. S. Gooch, Lawton, has been appointed a first lieutenant in the Reserve Corps of the United States Army. The appointment was made through a competitive examination; nomination by the President and confirmation by the Senate.

Dr. T. A. Blaylock, Madill, spent February and March in St. Louis doing post-graduate work.

Dr. I. B. Oldham, city superintendent of health of Muskogee, recently resigned the office, to take effect April 15th. The resignation was not due to any political change or dissatisfaction, but was under contemplation for many months and finally made in the belief that Dr. Oldham could more effectively work through the enactment of certain legislation with reference to milk legislation and other needed improvements on sanitary measures in the city of Muskogee.

Dr. J. J. Davis, a traveling physician alleging that he represented the Manney's Home Sanitarium, Tucumcari, N. M., was recently arrested at Clinton on complaint of Dr. O. G. Bacon of Davidson, and others, on a charge of practicing medicine in Tillman county in violation of the law. He was placed in jail at Frederick where he was unable to give bond.

Dr. R. L. Morrison of Poteau is doing post-graduate work in Chicago and Rochester. He is accompanied by Mrs. Morrison and expects to return about June 1st.

Dr. R. S. Wagner, Tulsa, was recently held up by two highwaymen, who, becoming alarmed at the cries of Mrs. Wagner, took flight, but not before one of the robbers had shot the other. Dr. Wagner immediately moved the injured man to a hospital and operated him, but he was so seriously wounded that he never recovered from the shock and died shortly afterward.

Dr. C. T. Rogers, election inspector of Muskogee county, was recently arrested under allegations of irregularities in the matter of a primary election. He has countered with a suit for twenty-five thousand dollars, which had a sobering effect on his accusers.

Dr. Joel P. Giles, a chiropractor of Enid, has been sued for actual and exemplary damages by one of his students, the suit including others connected with the Palmer-Gregory Chiropractic College. The student alleges a contract was entered into to give her a certain course of instruction, that the school has no existence except to defraud and that she received no benefit or diploma from the money paid in, as had been agreed.

Dr. John W. Duke, Guthrie, has formally and definitely announced his entrance to the political field of Oklahoma, seeking the Democratic nomination for Governor in the primaries to be held in August. Dr. Duke has the distinction of being the only Democratic mayor ever gracing the office in Guthrie, an overwhelming Republican community, and not only has the confidence of his party in his country but has the support of all classes in his ambitions. This is the first instance of any physician announcing his candidacy for that office in Oklahoma.

Dr. Frank P. Davis, Enid, has announced his candidacy for Lieutenant-Governor, subject to the Democratic primaries. Dr. Davis was once before a candidate for this office and received a high vote considering the number in the field. His platform as announced contains his position on the problems of the day in unmistakable terms.

Pottawatomie County physicians recently adopted resolutions bitterly resenting insinuations of a local Socialistic paper imputing moral turpitude on the part of the local staff of the Shawnee Hospital. The resolutions were written and framed with the assent of the mayor of Shawnee, who joined the physicians in asking that the paper make its indefinite statements clear to the end that proper steps might be taken, if necessary, to correct the matter.

Woods Hutchison, the Eastern "Who's Who and Why" writer for many papers and magazines of National circulation, recently visited Oklahoma City and delivered an address to the High School students on "Fresh Air." His address to the Men's Dinner Club was on "Hereditry."

COUNTY AND ALLIED SOCIETIES.

Ottawa County held its March meeting in North Miami. Dr. G. P. McNaughton read a paper, "Is Internal Medicine a Lost Art?" Dr. B. F. Points announced a paper on "Serum Therapy" and Dr. Geo. A. De Tar, subject unannounced for the next meeting.

Comanche County elected: President, W. B. Mead; vice president, H. A. Angus; secretary-treasurer, G. S. Barber, all of Lawton.

Pawnee County elected: President, H. B. McFarland; secretary-treasurer, J. C. Hawkins, Cleveland; vice president, W. Kelly, Terlton; Censors, F. S. Bobbitt, Terlton; J. E. Lehw, Pawnee; R. E. Calhoun, Hallett.

Hughes County elected: President, H. A. Howell; vice president, J. W. Lowe; secretary-treasurer, W. D. Atkins, all of Holdenville; Censors, J. D. Scott, Holdenville; P. E. Mitchell, Yeager; T. J. Cagle, Wetumpka.

Choctaw County elected: President, W. N. John, Hngo; vice president, J. D. Moore, Sawyer; secretary-treasurer, C. H. Swearingen, Hugo.

Wagoner County elected: President, F. W. Smith; vice president, G. R. Gordon; secretary-treasurer, J. L. Reich, Wagoner.

Seminole County elected: President, J. N. Harber; secretary-treasurer, M. M. Turlington, Seminole; delegate, T. F. Harrison, Wewoka.

Dewey County elected: President, W. E. Seba, Leedy; vice president, K. R. Rone, Vici; secretary-treasurer and delegate, V. M. Gore, Taloga.

Muskogee County meeting of March 3rd. Papers read were: "Salvarsan Technic," J. C. Warmack; "Ophthalmology-Historical," W. B. Newton; "Postoperative Shock." Meeting of April 13: "Perforative Gastric Ulcer," S. W. Aiken; "Pituitrin," J. L. Blakemore. S. R. Bates, Wagoner, presented a clinical case having marked appearances of both syphilitic and pellagrinous infection. Delegates elected were: J. Hutchings White, Sessler Hoss and Milton K. Thompson.

Woods County elected: President, R. Z. Linney, Hopeton; vice president, C. F. White; secretary-treasurer, O. R. Gregg; delegate, C. F. White, Alva.

PROCEEDINGS OF CLINICAL SOCIETY ST. ANTHONY'S HOSPITAL.

President, J. S. Hartford; Secretary, L. J. Moorman, Oklahoma City.

Paralysis of the Facial Nerve Occurring in a Chronic Purulent Otitis Media.

Reported by Dr. Edward F. Davis.

The patient, a boy of eleven, has had a chronic purulent middle ear condition for seven years, with occasional acute exacerbations. Ten days ago he had an acute attack, with pain in the ear and at the mastoid tip so severe as to require morphine. Shortly after the onset, he showed a complete facial paralysis on the affected side.

I saw him for the first time on the third day. The lips were drawn to the opposite side and on attempting to grin, the angle of the mouth

did not extend beyond the middle line as much as the width of the incisor tooth. It was impossible to get the eye more than half closed.

There was rather a free discharge from the ear and a large polyp protruded through the perforation in the drum. No sagging was observed in the posterior superior meatal wall. Adenoids were present. The pain had subsided.

There is a general rule that the appearance of symptoms of involvement of the facial nerve, meninges or labyrinth in a chronic otorrhoea is an indication for immediate radical mastoid operation. For several reasons, it seemed advisable to wait a day before the operation. On the next day the paralysis seemed a little lessened, as did the purulent discharge; there was no pain and the child said that he felt perfectly well, as was indicated by his good spirits. The operation was never done, the discharge ceased entirely, the polyp disappeared, the perforation closed and the hearing improved. The paralysis is almost entirely overcome.

The treatment consisted only in keeping the canal clean. For a few days applications of silver nitrate were made to the polyp. After about a week, the adenoids were removed.

Apparently the child is perfectly well, though, of course, an acute exacerbation would not be surprising, but the progress of the case, so far, has been unusual and is reported for this reason.

It was supposed that the paralysis was due to necrosis of the bone of the aqueductus fallopi, but this seems not to have been the case and I believe that there was only a slight exudate into the canal and that it was absorbed.

Drs. E. F. Davis and Leila Andrews reported the following cases in which intranasal treatment was given for dysmenorrhoea:

Case 1.—Miss H., age 25. Family and personal history negative, except that she was operated on two years ago for chronic appendicitis. At each menstrual period she suffered much nausea and pain, necessitating being in bed for one or two days. The first treatment, consisting of the application to the inferior turbinates, gave relief to the extent that she was able to be about her work in a fair degree of comfort. After this period, weekly treatments with trichloroacetic acid enabled her to attend to her work in comfort at her next menstruation.

Case 2.—Miss K., age 34. Pain at menstrual periods required opiates. Has a retroflexed uterus. The first application during menstruation gave relief. Afterward the trichloroacetic acid was used and she said that she had the greatest relief she had ever experienced.

Case 3.—Miss H., age 20. Was always confined to her bed for one or two days. Treatment was given during the first day of her period and she went back to work and remained at it during the entire period.

Nothing new is claimed in these cases, but they are cited in support of the various articles that have appeared recently on the subject of nasal treatment of dysmenorrhoea.

Cancer of the Lower Lip With Extension Into the Right Cheek and Glandular Metastases.

Reported by Horace Reed, Oklahoma City.

Case.—C. C. P., farmer, age 57. Admitted to hospital February 20, 1914; gave the following history: Two years ago a stinging sensation called his attention to a small, bluish spot near center of lower lip. In May or June of 1913 began taking treatment from a self-styled "cancer specialist" whose method of treatment consisted in the use of local applications. From this time on there was a rapid spread of the ulcer until at present it extends into the right cheek. Has lost some in weight and strength recently, which he thinks is due to his decreased diet. Pain has been worse lately. One sister is reported as having a cancer removed from left temple region, with recovery. Family history otherwise negative. Patient has used tobacco all his life, very little alcohol and none the last two years.

Examination revealed a considerable destruction of lower lip, particularly of the right side. The margins of the lip, the right angle of mouth and inside of right cheek for a distance of about 3-4 inch from the angle was ulcerated. The lip was indurated and hard, as was also the portion of cheek involved.

The lymphatics in both submaxillary regions were involved—those on the right side more extensive than those on the left. The patient showed a considerable degree of emaciation and a complexion suggestive of mild cachexia. Other findings were insignificant.

Remarks.—This was clearly a case of cancer of the lip and was diagnosed as inoperable. Dr. Lain, on being consulted, advised that as much as possible of the growth and metastases be removed, after which he would expose the parts to the X-rays with, he thought, a faint hope of a cure. The operation was performed February 25, 1914.

In the removal of the growth of lip and cheek, the plan of Burow was followed. This operation allows for the closure of large defects without difficulty, as results in this case show.

For the removal of the sub-maxillary lymphatics, an incision was made along the border of lower jaw from one angle to the other. The flap, consisting of skin and platysma myoides, was dissected to below the level of the hyoid bone. This gives an excellent exposure of the tissue to be removed. The lymphatics, together with the deep fascia and sub-maxillary glands, were removed in one block. The genio-hyoid muscles were separated and the sub-lingual spaces cleared out. Drains were placed into both sub-maxillary spaces and the wound closed with interrupted sutures.

Had the growth not been so wide spread, we would have performed the extensive dissection as described by Beckman in the Journal Oklahoma State Medical Association of October 13.

Microscopical examination shows the growth to be cancer.

PROGRAM TWENTY-SECOND ANNUAL MEETING OKLAHOMA STATE MEDICAL ASSOCIATION, GUTHRIE, MAY 12-13-14, 1914.

Attention of members and those proposing to attend is called to the following:

A roster of members in good standing for 1914 will be made up prior to the meeting and only those in good standing will be granted the privileges of attendance, registration as such and badges indicating membership.

The meetings of the House of Delegates will be for the Delegates only, and will be held in the Municipal Bath House, and no one not a delegate will be permitted the floor. This rule is made necessary by experience of the past in which the general membership encroach on the time of the House of Delegates and at the same time by absenting themselves from the sections to which they properly belong diminish section attendance.

Contributors of papers to the different sections are requested to have them ready for handing to the Chairman or Reporter of the Section as soon as they are read. Carrying them home only entails unnecessary correspondence. It should not be forgotten that the papers are the property of the Association.

Individual members are earnestly requested to assist by prompt attendance on the sections in the reduction, to the lowest degree of confusion and delay.

HOUSE OF DELEGATES.

TUESDAY, MAY 12, 2:00 P. M., MUNICIPAL BATH HOUSE.

This is a business meeting devoted to receiving and hearing reports, transacting such business as may be in order and considering such new business as may be brought forward.

The meeting will be called to order by the President, Dr. J. M. Byrum, Shawnee, but no addresses will be delivered until the evening of the 12th, at 7:30 p. m.

GENERAL MEETING.

TUESDAY, MAY 12, 7:30 P. M., MUNICIPAL BATH HOUSE.

Invocation—Reverend G. O. Nichols, Guthrie.

Welcome to Guthrie—Honorable Horace Speed, Guthrie.

Response—LeRoy Long, McAlester.

Address of Welcome on Behalf of Logan County Medical Society—Dr. John W. Duke, Guthrie.

Response—Curtis R. Day, Dean, Medical Department University School of Medicine.

President's Address—Dr. J. M. Byrum, Shawnee.

WEDNESDAY, MAY 13, 1914, 7:30 P. M.

Visiting doctors and ladies will be guests of the Mason's Consistory at the Masonic Temple.

THURSDAY, MAY 14, 8:00 A. M., MUNICIPAL BATH HOUSE.

Meeting of the House of Delegates.

THURSDAY, MAY 14, 1914, 8:30 P. M.

Doctors will be entertained at Elk's Club Rooms with buffet luncheon.

SECTION ON SURGERY.**Dr. HORACE REED, CHAIRMAN, OKLAHOMA CITY.****Meeting Place, Lone Hotel, Tuesday, May 12, 1914, 1:30 P. M.**

- 1.—Chairman's Address.
- 2.—"Co-Operation of the Physician with the Surgeon in the Treatment of Acute Intraabdominal Diseases Necessary to Obtain the Best Results".....
.....Dr. F. E. Rushing, Coalgate
- 3.—"The Relation of the Internist to the Surgeon"....Dr. H. M. Williams, Wellston
- 4.—"Diseases of the Gall-Bladder and Ducts"—
 - (a) "Pathology and Diagnosis".....Dr. C. E. Clymer, Oklahoma City
 - (b) "Prognosis and Treatment".....Dr. H. A. Lile, Aline
- 5.—"Appendicitis: Its Treatment in the Country".....Dr. V. M. Gore, Taloga
- 6.—"Indications for Operation in Certain Internal Diseases".....
.....Dr. L. J. Moorman, Oklahoma City
- 7.—"Peptic Ulcer"—
 - (a) "Etiology and Pathology".....Prof. L. A. Turley, Norman
 - (b) "Diagnosis and Treatment from Internists' Viewpoint".....
.....Dr. Lea A. Riely, Oklahoma City
 - (c) "Diagnosis and Treatment of Duodenal Ulcer".....Dr. A. A. West, Guthrie
- 8.—"Jonnesco's or Jackson's Membrane".....Dr. F. H. Clark, El Reno
- 9.—"Bladder Trouble".....Dr. S. H. Landrum, Altus
- 10.—"Prognosis and Treatment of Injuries of the Central Nervous System".....
.....Dr. Ross Grosshart, Tulsa
- 11.—"Diseases of Bone"—
 - (a) "Bone Regeneration and Repair".....Dr. J. F. Kuhn, Oklahoma City
 - (b) "Inflammatory Diseases".....Dr. Millington Smith, Oklahoma City
 - (c) "The More Recent Development in Bone Surgery".....
.....Dr. J. W. Riley, Oklahoma City
- 12.—"Causes and Treatment of Postoperative Shock".....Dr. P. P. Nesbitt, Muskogee
- 13.—"Abdominal Injuries".....Dr. G. A. Wall, Bartlesville
- 14.—"Surgery and Treatment of Accidents".....Dr. J. Clay Williams, Stroud
- 15.—"Primary Gland Tuberculosis of Mesentery"—Case Report—Review of Literature.....
.....Dr. W. D. Berry, Muskogee
- 16.—"Infantile Paralysis—Its Pathology and Treatment"....Dr. W. G. Brymer, Dewar
- 17.—"Post-operative Hernia".....Dr. A. S. Risser, Blackwell

SECTION ON GENERAL MEDICINE, NERVOUS AND MENTAL DISEASES.**DR. ARTHUR W. WHITE, CHAIRMAN, OKLAHOMA CITY.****Meeting Place, Columbus Hall, Tuesday, May 12, 1914, 1:30 P. M.**

- 1.—Chairman's Address.
- 2.—"Syphilis as a Cause of Nervous and Mental Diseases"..Dr. J. W. Duke, Guthrie
- 3.—"The Ideal Medicine for the Future".....Dr. D. F. Stough, Geary
- 4.—"Medical Conservation—Some Problems and Solutions".....
.....Dr. W. G. Little, Okmulgee
- 5.—"State Health Problems".....Dr. J. C. Mahr, Oklahoma City
- 6.—"Infantile Paralysis—Etiology, Pathology, Symptomatology".....
.....Dr. Leila E. Andrews, Oklahoma City
- 6½.—"Infantile Paralysis"—Treatment.....Dr. R. L. Hull, Oklahoma City
- 7.—"Fistula in Ano" (For the General Practitioner) Dr. Arthur A. Will, Oklahoma City
8. "Pellagra".....Dr. J. C. Watkins, Checotah
Discussion—Case Reports.....Dr. L. A. Mitchell, Frederick
- 9.—"Early Diagnosis of Insanity".....Dr. B. A. Thurlow, Norman

- 10.—"Pneumonia".....Dr. C. E. Frost, Duncan
- 11.—"A Synopsis of Influenzal Manifestations and Treatment".....
.....Dr. Harry E. Breese, Henryetta
- 12.—"Pulmonary Infections".....Dr. R. H. Fox, Altus
- 13.—"The Physician and the Drug Habit".....Dr. C. W. Fisk, Kingfisher
- 14.—"Injuries to the Eye".....Dr. Edward F. Davis, Oklahoma City
- 15.—"Rabies in Oklahoma".....Dr. Gayfree Ellison, Norman
- 16.—"Treatment, Care and Training of Feeble-Minded Children".....
.....Dr. W. L. Kendall Enid
- 17.—"Clinical Diagnosis".....Dr. Walter E. Wright, Tulsa
- 18.—"Importance of Diagnosis in Pathological Conditions of the Lower Chest
and Abdomen".....Dr. L. S. Willour, McAlester
- 19.—"Clinical Demonstration of Hookworm".....Dr. W. P. Jacobs, Utility
Field Man Rockefeller Sanitary Commission, Windsor, North Carolina.

SECTION ON GYNECOLOGY AND OBSTETRICS.

DR. D. L. GARRETT, CHAIRMAN, ALTUS.

Meeting Place, Ione Hotel, Wednesday, May 13, 1914, 1:30 P. M.

- 1.—Chairman's Address.
- 2.—"Uterine Fibroids".....Dr. M. M. DeArman, Mangum
- 3.—"Report of Three Cases of Congenital Atresia of the Vagina".....
.....Dr. H. P. Wilson, Wynnewood
- 4.—"The All Important Question in Gynecology—Cancer of the Uterus".....
.....Dr. Bacon Saunders, Ft. Worth, Texas
- 5.—"Broad Ligament Infections".....Dr. J. S. Hartford, Oklahoma City
- 6.—"Puerperal Infection".....Dr. Charles R. Hume, Anadarko
- 7.—"Puerperal Sepsis—Prevention and Treatment".....Dr. W. A. Fowler, Oklahoma City
- 8.—Subject to be AnnouncedDr. George S. Noble, Atlanta, Ga.
- 9.—"Vaccines in Some Conditions in the Female Pelvis".....Dr. A. B. Leeds, Chickasha
- 10.—"Conservative Surgery in Pelvic Infections".....Dr. Curt von Wedel, Oklahoma City
- 11.—"Physician's Responsibility to the Young Wife in Pregnancy".....
.....Dr. G. A. Morrison, Poteau
- 12.—Subject to be Announced.....Dr. J. H. Jones, Hollis

SECTION ON EYE, EAR, NOSE AND THROAT.

DR. W. ALBERT COOK, M. D., CHAIRMAN, TULSA, OKLAHOMA.

Time and Place of Meeting, Columbus Hall, Wednesday, May 13, 1914. 1:30 P. M.

- 1.—Chairman's Address.
- 2.—"Heterophoria".....Dr. Milton K. Thompson, Muskogee
- 3.—"Headache of Nasal Origin".....Dr. Edward F. Davis, Oklahoma City
- 4.—"Mastoiditis".....Dr. G. E. Hartshorne, McAlester
- 5.—"Suppurative Otitis Media".....Dr. L. A. Newton, Guthrie
- 6.—"Nasal Reflexes".....Dr. W. Eugene Dixon, Oklahoma City
- 7.—"Ophthalmology, Past and Present".....Dr. W. B. Newton, Muskogee
- 8.—"The Specialist as He Appears to Us".....David Ap. Myers, M. B., C. M., Lawton
- 9.—"Errors of Refraction as a Cause of Headaches and Neuralgia".....
.....Dr. U. C. Boon, Chickasha
- 10.—"The Treatment of Pannus".....Dr. J. B. Ferguson, Sallisaw
- 11.—"Nasal Obstruction in Children".....Dr. C. B. Barker, Guthrie
- 12.—"Some Unusual Manifestations of Labrynthal Infection".....
.....Dr. H. Coulter Todd, Oklahoma City

SECTION ON PEDIATRICS.

DR. E. FORREST HAYDEN, CHAIRMAN, TULSA.

Meeting Place, Municipal Bath House, Wednesday, May 13, 1914, 1:30 P. M.

- 1.—Chairman's Address.
- 2.—"The Skin During Childhood—Its Care and Treatment".....
.....Dr. A. B. Leeds, Chickasha
- 3.—"Summer Diarrhoea of Children".....Dr. J. W. Browning, Geary
- 4.—"Management and Treatment of Convalescent Severe Cases of Ileocolitis"...
.....Dr. J. L. Holland, Altus
- 5.—"Congenital Defects of the Eyes that Manifest Themselves in Children....
.....Dr. L. Haynes Buxton, Oklahoma City
- 6.—"Hygienic Management of Children".....Dr. S. P. Rawls, Altus
- 7.—"A Plea for Early Intubation by the General Practitioner".....
.....Dr. A. P. Gearhart, Blackwell
- 8.—"The Cause and Prevention of Degeneracy in Infancy and Childhood".....
.....Dr. R. E. Lee Rhodes, Tulsa
- 9.—"Pharyngeal Diagnosis from the General Pratitioner's Standpoint—A Few
Suggestions in Treatment".....Dr. W. E. Dixon, Oklahoma City
- 10.—"Infant Feeding".....Dr. Carl Puckett, Pryor
- 11.—"Goitre".....Dr. N. S. Mayberry, Enid

PROGRAM WOMAN'S AUXILIARY.

SUN ROOM, MUNICIPAL BATH HOUSE, MAY 13, 1914, 10 A. M.

Call to order by the President, Mrs. T. F. Renfrow, Billings.

- Invocation.....Rev. R. I. Mansfield, Guthrie
- Address of Welcome.....Mrs. J. L. Houseworth, Guthrie
- Response.....Mrs. T. C. Sanders, Shawnee
- President's Address.....Mrs. T. F. Renfrow, Billings
- Symposium: "How Can We Best Promote Interest in and Establish Aux-
illiaries to the County Societies and in What Way Can We as an Organized
Body be of the Greatest Assistance to the Physicians and the Public".....
.....Mrs. F. H. Clark, El Reno, and Mrs. W. C. Mitchener, Okmulgee
- Solo, Selected.....Mrs. E. S. Ferguson, Oklahoma City
- "The Rights of the Physician's Wife".....Mrs. Julian Field, Enid
- Luncheon, 1 p. m. by the Physician's Wives of Guthrie.
- Musical.....Faculty of Methodist University of Oklahoma

THURSDAY, MAY 14, 10 A. M., COLUMBUS HALL.

- Reading of Minutes of 1913 meeting.
- Reports of Resolutions and Treasurers Committees.
- Reports of Delegates from County Auxilliaries.
- "Some Legislation Needed in Oklahoma," Mrs. D. F. Coldiron, Red Rock.
- Solo, Mrs. W. L. Kendall, Enid.
- Unfinished Business.
- Election of Officers.
- Introduction of Officers.
- Automobile Ride Over the City.

NEW BOOKS

THE CLINICS OF JOHN B. MURPHY, M. D.

Volume III, Number 1.

The Clinics of John B. Murphy, M. D., at Mercy Hospital, Chicago. Volume III, Number 1. Octavo of 190 pages, 91 illustrations. Philadelphia and London: W. B. Saunders Company, 1914. Published Bi-Monthly. Price per year: Paper, \$8.00; Cloth, \$12.00.

The publishers announce that beginning with the April, 1914, issue of the clinics, Dr. Murphy will give a detailed talk in each issue on some special topic of surgical diagnosis.

Among the noteworthy features of this issue, which the publishers announce, is in their opinion, the best ever issued; are clinics on fractures of internal and external malleolus; gastric ulcer and gastric carcinoma, laminectomy for compression of the spinal cord; the book also showing the end results of many operative cases previously noted.

In addition to the great amount of work credited to Dr. Murphy, the February issue also contains addresses or talks before the clinic by Sir Rickman J. Goodlee, President of the Royal College of Surgeons of England, on "Lord Lister and Antiseptic Surgery;" by Dr. George Emerson Brewer of New York on "Metastatic Infections," by Mr. Herbert Patterson, F. R. C. S., London; by George W. Crile on "Nitrous Oxid Anesthesia," with many other unusual features not heretofore included in the issues.

This number is doubly instructive and attractive on account of much of the material having been produced at the time of the Chicago meeting of the American College of Surgeons, when that city was necessarily the guest of the surgical brains of the United States with many notables in that respect from abroad.

The proposition by Dr. Murphy to make diagnosis of surgical conditions a feature of each issue will appeal to those who have had the pleasure of knowing and seeing his work and will keep them in further touch with the most engaging part of a surgeon's work—diagnosis.

THE PRACTICE OF PEDIATRICS.

The Practice of Pediatrics. By Charles Gilmore Kerley, M. D., Professor of Diseases of Children, New York Polyclinic Medical School and Hospital. Octavo of 878 pages, 139 illustrations. Philadelphia and London: W. B. Saunders Company, 1914. Cloth, \$6 net; Half Morocco, \$7.50 net.

This effort of Dr. Kerley's is a worthy sequel to his former work on "The Treatment of the Diseases of Children" and is brought out by a demand that he consider pediatrics in its broader field. He has answered the demand effectively in this instance and his finished work is a volume to be proud of.

He considers the feeding of infants in its many variations minutely and provides for the exceptional cases so often baffling to the attending physician; the child with malnutrition, low development and similar handicaps is handled scientifically and properly. The exact directions as to drug administration, the inclusion of a dosage table for infants, and the myriad hints and directions for the application of topical and similar remedies go far to make up the great value of the book.

Every phase of child life from the pathological and abnormal standpoint is considered. Referring to the section on appendicitis, we note with pleasure statements abstracted in part as follows: "My own cases have been in children ranging from nine months to fourteen years." "I have learned that exploratory incision should be made as soon as we realize we are not positive regarding the character of the trouble at hand." "This has been learned through experiences wh'ch I regret." "While temporizing may answer in the adult, it may be fatal in the child." These observations are here included to show the reader the variety of subjects handled in this work and to demonstrate in a slight way the writer's grasp of his many-sided subject. The entire work is the result of the efforts of a master in his field and should receive a cordial reception from the profession.

MEDICAL GYNECOLOGY.

The New (3rd) Edition.

Medical Gynecology, by S. Wyllis Bandler, M. D., Adjunct Professor of Diseases of Women, New York Post-Graduate Medical School and Hospital. Third Thoroughly Revised Edition. Octavo of 790 pages, with 150 original illustrations. Philadelphia

and London: W. B. Saunders Company, 1914. Cloth, \$5 net; Half Morocco, \$6.50 net.

At the outset it is admitted by all students that gynecology, in the main, is a surgical or semi-surgical science, but the many glaring exceptions to the otherwise fixed rule make it essential that the gynecologist master those systems of treatment of the purely medical condition in the female and those conditions demanding palliative, rather than operative treatment. A knowledge of the medical aspects of gynecology being as necessary to the proper treatment of the conditions as complete understanding of the surgical, in other words, no field of medicine is as fraught with the so-called "borderline" cases, as is gynecology.

Bandler in no sense discourages surgery in its proper field, but holds that much of the work may be accomplished by conservative medical treatment a conclusion that will be agreed to readily by the unbiased and, in arriving at his masterly handling of the subject he has achieved a vantage point not found in the purely gynecological work, or if so, given rather scant attention. The writer for about three years past has had occasion to consult former editions of this work and has found it a most helpful volume. This help comes from the fact that the application of local and medical means for the relief of the conditions we meet daily is thoroughly accentuated; a close following of the teachings will be found to net good results. The application of drug therapy in given conditions shows an appreciation of real conditions as we daily meet them. The work should be promptly welcomed as exceedingly worth while.

INFORMATION AND WHERE TO GET IT.

Not long since the writer received a communication asking him when the next meeting of the board of medical examiners would be held, who was secretary, etc. It was an easy matter to turn to the Journal and note that the meeting would be held in April; write him accordingly, giving the name and address of the secretary, but the opportunity to tell this physician that all such information was a constant part of both the Journal A. M. A. and the Directory issued by them to be found in most any town in the country, was too good a one not to use for the purpose of accentuating the value of these publications to the physician in quest of almost any class of information pertaining to his profession. To any man seeking knowledge of the activities of his own and other states and physicians and their allied interests, the Directory and each issue of the Journal will fill his wants. The familiar query of exhibitors, and people having things to sell to physicians, is promptly answered in the publications noted. A great deal of time and unnecessary correspondence may be saved by remembering these features.—Ed.



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OFFICERS DIRECTORY, OKLAHOMA STATE MEDICAL ASSOCIATION

Annual Meeting, Guthrie, May 12-13-14.

President—J. M. Byrum, Shawnee.
First Vice President—J. T. Slover, Sulphur.
Second Vice President—D. Long, Duncan.
Third Vice President—J. H. Barnes, Enid.
Secretary—Claude A. Thompson, Muskogee
Delegates to A. M. A.—
J. Hutchings White, Muskogee, 1914.
W. E. Wright, Tulsa, 1914-15.

CHAIRMEN OF SCIENTIFIC SECTIONS.

Surgery—Horace Reed, Chairman, Oklahoma City.
Pediatrics—E. Forrest Hayden, Tulsa.
Eye, Ear, Nose and Throat—W. A. Cook, Tulsa.
General Medicine, Mental and Nervous Diseases—Dr. A. W. White, Oklahoma City.
Gynecology and Obstetrics—D. L. Garrett, Altus.

LEGISLATIVE COMMITTEE.

J. Q. Newell, Oklahoma City, 1913-14.
C. R. Day, Security Building, Oklahoma City, 1913.
John W. Duke, Guthrie, Oklahoma, 1913-14-15.

NECROLOGY COMMITTEE.

J. B. Smith, Durant, for three years, 1912-13-14.
A. D. Young, Oklahoma City, for two years, 1912-13.
Geo. A. Boyle, Enid, for one year, 1912.

STATE BOARD OF MEDICAL EXAMINERS.

President—Francis B. Fite, Muskogee.
Vice President—E. Ellis Sawyer, Durant.
Secretary—John W. Duke, Guthrie.
Frank Englehart, Oklahoma City; LeRoy Long, McAlester; Phillip F. Herod, Alva; W. LeRoy Bonnell, Chickasha; James O. Wharton, Duncan; Melvin Gray, Chickasha.

Oklahoma now reciprocates with the following states: Texas, New Mexico, Nebraska, Nevada, Michigan, Wisconsin, Indiana, Kentucky, Arkansas, Tennessee, Mississippi, Georgia, North Carolina, West Virginia and New Jersey.

Next meeting Oklahoma City, April 14, 15, 16, 1914.

Address all communications to the Secretary, Dr. J. W. Duke.



